ANSI

Korean Agency for Technology and Standards

KSA KOREAN STANDARDS ASSOCIATION

EVENT AGENDA AND SPEAKER BIOS

AGENDA

8:00am	**Ballroom**	**Opening Remarks**
8:05am	**Ballroom**	**Welcome Remarks**
Joe Bhatia, President and CEO, American National Standards Institute (ANSI) **(US)**		
Chongwook CHIN, Administrator, Korean Agency for Technology and Standards **(K)**		
Jin Roy RYU, Chairman, the Federation of Korean Industries (FKI) **(K)**		
8:20am	**Ballroom**	**Keynotes**
Harmonization of the Rapidly Changing Technologies **Thomas Gardner,** Board of Directors, ANSI / CTO, HP Federal **(US)**		
National Standards Strategy for High-Tech Industry **Dr. Joon-sung KOH,** Division Chair, High-Tech Industry Leadership Forum / Senior Research Fellow, Korea Institute for Industrial Economics & Trade **(K)**		
8:40am		**Coffee Break**
8:50am		**Parallel Technical Sessions**
Green Energy & Carbon Neutrality	**Ballroom**	**Moderator: Dr. Chunyoul BAEK** **Jonathan Colby,** President & Founder, Streamwise Development, LLC ***(virtual)*** **(US)** **Judy Zakreski,** Senior Vice President, Global Operations & Solutions, International Code Council **(US)** **Alyson Fick,** Manager, Committee D02 on Petroleum, Liquid Fuels and Lubricants, ASTM **(US)** **Carrie Schmaus,** Technology Manager, U.S. Department of Energy (DOE) **(US)** **Evelyn Butler**, Vice President of Technical Services, Solar Energy Industry Association (SEIA) **(US)** **Dr. Kyungsoo KIM,** Korea Institute of Energy Research ***(virtual)*** **(K)** **Dr. Chunyoul BAEK,** National Standard Coordinator, Korean Agency for Technology and Standards (KATS) **(K)** **Dr. Kyeonjae WOO,** Senior Researcher, Korea Conformity Laboratories (KCL) ***(virtual)*** **(K)**

Next Generation Mobility	**Bloomberg**	**Moderator: Veronica Lancaster,** President, the U.S. National Committee (USNC) of IEC / Vice President, Standards Programs, Consumer Technology Association (CTA) **(US)** **John Walker,** Chair, ISO TC 20/SC 16, Uncrewed Aircraft Systems **(US)** **Steve Griffith,** Executive Director, Regulatory & Industry Affairs, Mobility, National Electrical Manufacturers Association (NEMA) **(US)** **Carole Franklin,** Director of Standards Development, Robotics, Association for Advancing Automation **(US)** **Phil Kenul,** Immediate Past Chair of ASTM International Technical Committee F38 on UAS **(US)** **Adam Norton,** Chair of ASTM International Technical Committee F45 on Robotics, Automation, and Autonomous Systems ***(virtual)*** **(US)** **Dr. Young-Jun MOON,** Professor, Korea Advanced Institute of Science and Technology (KAIST), ISO TMB representing KATS & ISO/TC204 WG17 Convenor **(K)** **Insu JEON,** Senior Manager, Incheon Airport **(K)**
Artificial Intelligence	**Lisagor**	**Moderator: Rohit Israni**, Chairman - AI Standards US (INCITS/ANSI), InterNational Committee for Information Technology Standards (INCITS) **(US)** **Wael William Diab,** Chair, ISO/IEC JTC 1/SC 42 - Artificial Intelligence ***(virtual)*** **(US)** **Lenora Zimmerman,** Standards Development & Intelligence (SDI), Google **(US)** **Emmi Bane,** Lead, Responsible AI, HP ***(virtual)*** **(US)** **Dr. Youngim CHO,** Professor, Gacheon University **(K)** **Dr. Jongwon KWON,** Director, Korea Testing Laboratory **(K)**
Semi-conductors	**Murrow**	**Moderator: Dr. Deok-kee KIM** **Dr. Jeongwon Park,** Associate Professor, Department of Electrical and Biomedical Engineering, University of Nevada Reno **(US)** **Dr. Jeremy Muldavin,** Senior Technical Fellow, Aerocyonics Inc. **(US)** **Daniel DiMase,** President & CEO, Aerocyonics Inc. **(US)** **Dr. Ning Li,** Associate Professor, School of Electrical Engineering and Computer Science, Materials Research Institute, Pennsylvania State University **(US)** **Dr. Deok-kee KIM,** Professor, Sejong University **(K)** **Dr. Cheol-ung CHA,** Director, Korea Electronics Technology Institute (KETI) **(K)**
9:50am		**Coffee Break**

Green Energy & Carbon Neutrality (Part 2)	**Ballroom**	**(See above)**
Next Generation Mobility (Part 2)	**Bloomberg**	**(See above)**
Quantum Technologies	**Lisagor**	**Moderator: Dr. Haeseong LEE,** Professor, Jeonju University **(K)** **Jai Arun,** Head of IBM Quantum Safe Product Management & Strategy, IBM Quantum ***(virtual)*** **(US)** **Dr. Joon-shik PARK,** Chief Researcher, Korea Electronics Technology Institute (KETI) **(K)** **Dr. Hyojung KIM,** Research Professor, Kunsan National University ***(virtual)*** **(K)** **Dr. Joonwoo BAE,** Professor, Korea Advanced Institute of Science and Technology (KAIST) ***(virtual)*** **(K)** **Dr. Seong Su PARK,** Professor, Hallym University ***(virtual)*** **(K)**
Digital Identity	**Murrow**	**Moderator: Andrew Regenscheid** **Andrew Regenscheid,** Manager, Cryptographic Technology Group, NIST **(US)** **Dr. Yong Gyu JUNG,** Professor, Eulji University **(K)** **Taejin KIM,** CTO, Raon Secure Co., Ltd. **(K)**
11:00am		**Coffee Break**
11:10am	**Ballroom**	**Technical Session Wrap-up**
11:35am	**Ballroom**	**Closing Remarks**
11:40am	**Ballroom**	**Lunch**
12:40pm	**Ballroom**	**Special Session Standards Education**
Standards Education		**Moderator: Dan Smith**, Vice President, Technical Committee Operations, ASTM **(US)** **Lisa Rajchel,** Senior Director, American National Standards Institute **(US)** **Dr. S. Shyam Sunder,** Director, Special Programs Office and Acting Director, Standards Coordination Office, NIST **(US)** **Dr. Eung Ro LEE,** Director, International Standards Cooperation Division, KATS **(K)**
1:40pm		**Event Closed**

U.S.-KOREA STANDARDS FORUM

SPEAKER BIOS

Welcome Remarks

S. Joe Bhatia

S. Joe Bhatia began his tenure as president and chief executive officer of the American National Standards Institute (ANSI) on January 1, 2006.

Prior to joining ANSI, Mr. Bhatia held the position of executive vice president and chief operating officer of the international group at Underwriters Laboratories Inc. (UL). During his tenure with the organization Mr. Bhatia assumed positions of progressive leadership in global business operations. His areas of responsibility included engineering, governmental and congressional liaisons, external affairs, follow-up (certification) services, and direction of UL's $300+ million international operations.

Mr. Bhatia served two terms as president of the Pan American Standards Commission (COPANT), from 2013 to 2017, and previously served as COPANT vice president for four years. He also serves as vice chairman of the Industry Trade Advisory Committee on Standards and Technical Trade Barriers (ITAC 16), a joint program of the U.S. Department of Commerce and U.S. Trade Representative. He has served as a member of the Board of Directors of the Credential Engine, and a member of the International Organization for Standardization (ISO) Council and its Standing Committee on Strategies.

Recently retired as a member of the National Fire Protection Association (NFPA) Board of Directors, Mr. Bhatia holds a seat on the Oakton Community College Education Foundation Board. In addition to his numerous professional affiliations, he is a frequent lecturer in the U.S. and around the world on topics such as international trade, technical developments, commercial market access, and health, safety, and environmental concerns.

Mr. Bhatia holds a bachelor of science in electrical engineering and a master of science in business management. He and his wife, Punita, have two sons and one grandson.

Chongwook CHIN

- 2023.02~ present Administrator, Korean Agency for Technology and Standards (KATS)
- 2022.10~ 2023.02 Standing Commissioner, Korea Trade Commission Ministry of Trade, Industry and Energy (MOTIE)
- 2022.01~ 2022.10 Head of Free Economic Zone Planning Office, MOTIE
- 2018.12~ 2022.01 Minister Counsellor, Embassy of Republic of Korea in China
- 2016.12~ 2018.02 Director General, Bureau of Conformity Policy, Korean Agency for Technology and Standards (KATS)
- 2016.08~ 2016.12 Director, Industrial Technology Policy Division, MOTIE
- 2014.10~ 2016.08 Director, Enterprise Cooperation Division, MOTIE
- 2013.08~ 2014.10 Director, Regional Industry Division, MOTIE
- 2010.08~ 2013.08 Counsellor (Commercial), Embassy of Republic of Korea in Thailand
- 2009.08~ 2010.08 Office of Secretary for Science and Technology, Office of the President of Republic of Korea
- 2009.02~ 2009.08 Director, Design and Brand Division, Ministry of Knowledge and Economy (MKE)

Jin Roy RYU

In 2001, Mr. Jin Roy Ryu succeeded his late father and founder of Poongsan Group, one of the largest manufacturers of copper products and munitions worldwide, as Chairman and CEO. He currently serves as Chairman of the Federation of Korean Industries (FKI), Chairman of the Korea-US Economic Council, Vice President of the Seoul Forum for International Affairs (SFIA) and is also a Trustee of the Center for Strategic and International Studies (CSIS).

Mr. Ryu supports a number of philanthropic and educational organizations as a member of the Board of Trustees of the George & Barbara Bush Foundation and the Board of Governors of the PGA Tour's First Tee Program. In 2015, Mr. Ryu collaborated with the PGA Tour to host the President's Cup Golf Tournament in Korea and chaired the Tournament Organizing Committee.
Domestically, he serves as the Chairman of the Board of Trustees for the Pearl S. Buck Foundation and the Seoae Memorial Foundation which was established in honor of his grandfather thirteen generations prior, the most celebrated Confucian scholar and statesman of sixteenth century Korea.

In 2005, the Korean Government awarded Mr. Ryu the Order of Industrial Merit, the Gold Tower Award. In 2012, Mr. Ryu received the Order of Civil Merit, the Moran (Peony) Medal for his distinguished service and steadfast efforts to enhance Korea's visibility and participation in the global community.

Mr. Ryu remains actively connected to his alma mater, Seoul National University, and co-chairs the University's Social Responsibility and Contribution Committee.

Keynotes

Tommy Gardner

Tommy Gardner is HP's Chief Technology Officer for HP Federal, spanning the US Federal Agencies, Higher Education, K-12 Education, State and Local government customer segments, as well as Federal Systems Integrators. His current responsibilities include technology leadership, strategic technology plans, product and technology strategies, sales force technical support, and customer and partner relationships.

Previously, Tommy has served as the Chief Technology Officer for Jacobs Engineering, Scitor, and ManTech. Earlier in his career he was a senior technical executive at Raytheon. In the U.S. Navy he served as the Deputy for Science and Technology for the Chief of Naval Research. He oversaw the Navy's Deep Submergence Program as well as its Advanced Technology Program. He also commanded the nuclear submarine, USS San Juan (SSN 751).

Dr. Joonsung KOH

Dr. Koh has served as a senior research fellow at the Korea Institute for Industrial Economics & Trade (KIET), a government think tank, for 28 years and is currently conducting research and advising there as an honorary research fellow. His main research interests include technology regulation, digital trade, and AI law and policy. He is currently an advisor to the APEC Multilateral Trade Advisory Group of the Ministry of Trade, Industry and Energy of South Korea and a member of the TBT Policy Advisory Committee of the Korea Agency for Technology and Standards (KATS). He holds a Ph.D in international economic law.

Green Energy & Carbon Neutrality Technical Session

Dr. Chunyoul BAEK

Dr. Chunyoul Baek is the Standard Coordinator of Carbon Neutral at KATS (Korea Agency for Technology and Standards), In this role, he leads and coordinates efforts in the areas of standardization, Carbon Neutral. Prior to joining KATS, he was the senior researcher for environmental industry policy at KITECH (Korea Institute of Industrial Technology), in particular he was in charge of the policy and standard research for carbon footprint program, carbon neutrality declaration, K-ecodesign program in MOTIE (Ministry of Trade Industry and Energy). He was active in ISO/TC 207 from 2010 in particular climate change mitigation, adaptation and green finance field.

Jonathan Colby

Jonathan Colby is the President and Founder of Streamwise Development, a client-driven consultancy focused on enabling innovation and commercialization in the renewable energy industry.

Mr. Colby is actively involved in Standards and Conformity Assessment in the IEC. He serves as the Chair to IEC/TC 114 (Marine Energy) and as the Convener of the IECRE Marine Energy Sector Working Group, among other international and national roles. Mr. Colby was awarded the IEC 1906 Award for his work with the IECRE in 2015.

Mr. Colby was previously with Verdant Power for 15+ years, most recently as the Director of Technology Performance. While with Verdant, Mr. Colby supported a broad range of activities to successfully demonstrate tidal energy generation in the United States and abroad. Mr. Colby has significant experience in the operation of grid-connected tidal energy converters, including the assessment of power performance. He played a lead role at Verdant's Roosevelt Island Tidal Energy (RITE) Project, the first tidal energy project to receive a federal commercial license in the United States.

Judy Zakreski

Judy Zakreski is a Certified Global Business Professional responsible for developing and executing ICC's global strategy, including oversight of ICC's two regional offices in Dubai and Australia. In this role, she collaborates with stakeholders around the world to improve their building safety ecosystems, in many cases through use of the ICC family of building safety solutions, including building codes and standards, conformity assessment and TIC services, training, credentialing, and consulting. In addition, she engages with the US Government and other associations on matters of services exports and trade policy related to standards and technical barriers to trade. She leads ICC's involvement in relevant global dialogues including the Inter-Jurisdictional Regional Collaboration Committee (IRCC), International Building Quality Centre (IBQC), Global Alliance for Buildings and Construction (GlobalABC), and the Global Resiliency Dialogue. She serves as the Executive Director of the IBQC and as the Vice Chair of the Virginia/DC District Export Council.

Prior to joining ICC in April 2018, Judy spent 25 years helping Western companies enter the China market, providing expert advice in areas related to export finance and healthcare products and services, first with Chindex International and Chindex Medical Limited, and then through the boutique consulting firm she operated, China Trade Strategies.

Judy has published and spoken on various topics related to globalization and market entry, including building safety initiatives and collaboration around the world, trade policy, and the Chinese healthcare market. She holds a Bachelor's degree in International Studies and Chinese from American University and a Master's in International Commerce and Policy from George Mason University. She studied intensive Chinese at Peking University during the 1991-92 academic year.

Alyson Fick

Alyson Fick is a Manager in ASTM International's Technical Committee Operations (TCO) Division. ASTM International is a globally recognized leader in the development and delivery of international voluntary consensus standards. As an ASTM manager, Alyson is responsible for the management of ASTM Committees made up of volunteer member-experts from various industry sectors, such as Petroleum and Plastic. Alyson is responsible for assisting these members as they develop ASTM standards for use around the world to improve product quality, enhance safety, facilitate market access and trade, and build consumer confidence.

She holds a Bachelor of the Arts degree in International Area Studies and Modern Languages from Drexel University and a Masters in Public Administration from Villanova University.

Carrie Schmaus

Carrie Schmaus is a Marine Energy Technology Manager at the Water Power Technologies Office at the U.S. Department of Energy, a 2018 Young Professional Leader at the International Electrotechnical Commission (IEC), and a 2024 Excellence in Government Fellow. Before spending two and a half years with WPTO as a NOAA Knauss Marine Science and Policy Fellow and ORISE Fellow from 2018-2020, she worked as a research fellow at the National Council for Public-Private Partnerships, a DC-based non-profit that supports successful public-private partnership models. Her master's is from the School of Marine and Environmental Affairs at the University of Washington, and she graduated Phi Beta Kappa from Wittenberg University with a degree in biology.

Evelyn Butler

As Vice President of Technical Services, Evelyn leads SEIA's technical and technological initiatives and programs that support both the development, advocacy, and implementation of legislative and regulatory policy. These initiatives include the technical solutions that facilitate the solar industry's continued rapid growth and additionally mitigate business risks for its members.

Her team covers advocacy for solar and storage equipment in U.S. building, fire, and energy codes, product standards, practice and process standards development as an ANSI-accredited standards developer, operations and maintenance, DG permitting, and quality assurance initiatives that increase consistency, safety, quality, and professionalism in the industry.

Dr. Kyungsoo KIM

Dr. Kyungsoo Kim is a Principal Researcher at Korea Institute of Energy Research. He has been investigating Standard and Test Development of PV module, Failure analysis of PV module and system, Power degradation prediction using accelerating test method and International collaboration in MW scale PV system about 17 years. His group is carrying some of R&D projects on solar cell, module and system. Recently, he has expanded his activities to the field of development of international standards for solar energy at IEC TC82 and IECRE PVSWG.

Next Generation Mobility Technical Session

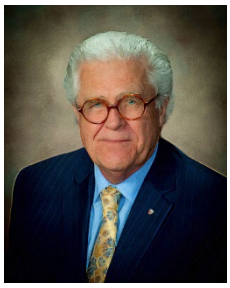
Veronica Lancaster

Veronica Lancaster is the Vice President of Standards Programs in the Technology & Standards Department of the Consumer Technology Association (CTA)™, the trade association representing the $505 billion U.S. consumer technology industry, which supports more than 18 million U.S. jobs. She is responsible for the development, management, and growth of CTA's standards program.

Prior to joining CTA in June 2013, Ms. Lancaster worked at the Alliance for Telecommunications Industry Solutions (ATIS) as the Manager for Global Standards Development. She was responsible for overseeing nine communications committees addressing a diverse range of topics. Specifically, the establishment of guidelines for common automatic data identification to simplify the receiving, shipping, transportation and tracing of telecommunications products, numbering issues associated with the North American Numbering Plan, development of operational guidelines to support network management, development of standards for performance, reliability, and security aspects of communications networks, and the development of standards addressing energy efficiency, environmental impacts, power and protection of telecommunications equipment and environments. She has served as a participant in the FCC Communications Security Reliability and Interoperability Council (CSRIC) II, WG1A, Public Safety Consolidation, and WG7, Pandemic Planning– Priority Service Requirements.

Ms. Lancaster is the President of the U.S. National Committee of the International Electrotechnical Commission, which is the focal point and conduit for US parties interested in global standardization, technical and policy positions. Additionally, she was elected as one of fifteen IEC Board Directors from 2023-2025, and serves as an IEC Board representative to the IEC's Business Advisory Committee. She won two 1906 Awards in 2020 for her contribution to the standardization of wireless power transfer and wearable technologies. She serves on the ANSI Board of Directors as the Chair of USNC/IEC Council and on the ANSI Board of Directors Executive Committee. Ms. Lancaster also serves as the Secretary and Treasurer on the CTA Foundation, which provides grants to support programs that empower and improve the lives of seniors and people living with disabilities through the use of technology. Ms. Lancaster previously served as President of the Board of Directors for Women in Standards from 2021-2022, which is focused on elevating and educating the standardization community on the importance of diversity, equity, inclusion, and belonging.

Ms. Lancaster received her Bachelor of Science in business administration with a minor in business law, with honors, from the University of Maryland Global Campus. She proudly served in the U.S. Army from 1989 until honorably discharged in 1994. Go Army, Beat Navy.



John Walker

John has 59 years of aviation experience in air traffic control, airspace management and airport development skills. John's career includes thirty-two years with the United States Federal Aviation Administration (FAA) and four years with the United States Air Force. His last FAA assignment was served in Washington, DC as the Senior Executive, Director of Airspace Management, responsible for management of all civil airspace within the United States.

John is currently the principal partner in The Padina Group, an aerospace consulting practice formed to provide executive consulting services focused on emerging aerospace technologies including airspace integration, airworthiness, system safety analysis, industry standards, policy making and new business development for government, industry, and academic customers worldwide.

John serves as a subject matter expert on the International Civil Aviation Organization (ICAO) RPAS Panel as a member of the United States / FAA Delegation and Co Rapporteur of the Air Traffic Management Work Group. In addition, John serves on the ICAO Advanced Air Mobility (AAM) Study Group. He also serves as the Industry Chairperson for the Joint Authorities for Rulemaking on Unmanned Systems (JARUS) and as the chairperson of the ISO UAS Committee (ISO TC20/SC16), developing industry recommended global standards for Unmanned Aircraft Systems (UAS) and serves on the European UAS Standards Coordination Group (EUSG).

He currently participates with the Aerospace Industries Association (AIA) Emerging Technologies Airspace Committee as the Vice Chairperson for the Airspace sub-committee and is a member of the Association for Unmanned Vehicle Systems International (AUVSI) Industry Advisory Committee.

Steve Griffith

Steve Griffith is an Executive Director, Regulatory and Industry Affairs for NEMA's Mobility Sector. He oversees NEMA's engagement with regulatory agencies of jurisdiction in mobility. He leads a matrix team to develop a strategy to advance NEMA's policy positions and desired regulatory outcomes, actively engages on relevant regulatory agency programs and rulemakings, and serves as a subject matter expert on mobility sector issues and priorities for both internal and external audiences.

Carole Franklin

Carole Franklin is the Director of Standards Development, Robotics, for the Association for Advancing Automation (A3). She leads A3's standards development activities in ANSI and ISO. Before joining A3, Carole spent over four years with management consulting firm Booz Allen Hamilton, where she led projects on business process improvement, internal communications, and executive communications. Prior to Booz Allen, Carole worked for Ford Motor Company for ten years in the market research department, where she led consumer research projects and tracking studies. Carole holds BA and MBA degrees from the University of Michigan.

Rear Admiral Philip M. Kenul, NOAA (ret.)

Philip Kenul is a Senior Vice President, TriVector Services and serves as Vice-Chair, ASTM Committee F38 on Unmanned Aircraft Systems developing UAS standards.

RDML Kenul (ret) served as a NOAA Corps officer focused on marine and aviation operations. RDML Kenul flew aircraft in support of aeronautical charting and trained with the Navy to become a WP-3D Orion aircraft pilot. He served as an Aircraft Commander with NOAA's Hurricane Hunters, as Director, NOAA Homeland Security Program Office, Commanding Officer, NOAA Aircraft Operations Center, and Director, NOAA Marine and Aviation Operations Centers responsible for NOAA's fleet of ships and aircraft. He has been directly involved with unmanned systems since the early start of these emerging technologies in NOAA.

RDML Kenul holds a bachelor's degree in biology from the State University of New York at Cortland and a master's degree in environmental and civil engineering from the University of Texas at Austin.
Memberships:

- European UAS Standards Coordinating Group (EUSCG),
- Steering Committee for the American National Standards Institute (ANSI) Unmanned Aircraft Systems (UAS) Standardization Collaborative (UASSC),
- Co-Chair, ANSI Airworthiness Working Group,
- Joint Authorities for Rulemaking on Unmanned Systems (JARUS) Stakeholder Consultation Body (SCB),
- ICAO Remotely Piloted Aircraft Systems Panel (RPASP),

- ICAO Advanced Air Mobility Study Group,
- Transport Canada Drone Advisory Committee (CANADAC).
- FAA Remote ID, BVLOS and Detect and Mitigate Aviation Rule Making Committees (ARC)

Adam Norton

Adam Norton is the Associate Director of the New England Robotics Validation and Experimentation (NERVE) Center at the University of Massachusetts Lowell. His research interests include the test and evaluation of robot, human, and human-robot performance, and the development of metrics, test methods, and benchmarking tools for robots. Adam has developed metrics and test methods and led evaluations for autonomous industrial vehicles, robotic manipulators, exoskeletons, response robots, unmanned aerial systems, and human-robot interaction. His research has been funded by the ARM Institute, U.S. Army DEVCOM Soldier Center, DARPA, NIST, NSF, and ONR, among others. Adam is the chair of ASTM F45 Committee on Robotics, Automation, and Autonomous Systems and he serves as a director on the ASTM Board of Directors for the 2024-2026 term.

Dr. Youngjun MOON

Dr. Young-Jun MOON is a Professor invited at the Global Commercialization Center (GCC) in Korea Advanced Institute of Science and Technology (KAIST), right after retirement in 2022 from Korea Transport Institute (KOTI) as a chief director of R&D department for transport technology. He has graduated in the Univ. of Illinois at Urbana-Champaign (UIUC) in 1998 with a doctoral degree of Transportation Engineering in the Dept. of Civil and Environmental Engineering. He started his career as a research engineer in the Agency for Defense Development (ADD) in 1987, developing Korean Surface to Air Missile (KSAM) for the military weapon systems. He participated in ITS World Congress and the International Standard Organizations in ITS area as a leader of ITS R&D in Korea from 1999 for developing a variety of ITS projects. Since then, he has been involved in ISO/TC204 as not only an expert in WG14 for vehicle/roadway warning and control system but also a Convenor of WG17 for nomadic & portable devices. He has been a member of the international program committee (IPC) of ITS World Congress since 2005 and also a chair of IPC for the 17th ITS World Congress in Busan, 2010. He has joined a committee member of Transportation Research Board (TRB) on ITS since 2013. He became a member of National Science & Technology Council (NSTC) in 2010 until 2013, and also a chair of Civil, Public, Air & Space R&D Committee since 2019 under Presidential Advisory Council on Science and Technology (PACST).
He has also been a consulting director of transportation division in PyeongChang 2018 Olympic and Paralympic Winter Games Organizing Committee since 2010. He has served as an Advisory Director to the Minister of Land, Infrastructure and Transport (MoLIT) from 2016 until 2017. Recently, he has elected as a board member for 2023 to 2025 term in ISO Technical Management Board (TMB).

Insu JEON

Insu Jeon is a senior manager of ATC System Team in Incheon Airport where he has work as an ATM system engineer and managed ATM automation system installation and integration projects, from 2010. As an instructor of an ICAO standard training course. He has extended his experience in UAM/AAM from 2019, especially AAM integration into the national airspace system and vertiport automation topics.

On UAM/AAM topics, he has been leading Flight Operation Working Group in UAM Team Korea, a joint council of the government, enterprises, academies, and agencies. And he wrote AAM Concept of Operations that suggested an integrated concept of harmonized operation of UAM, drones and related information systems.

Currently, he has been participating in ICAO AAMSG and G3AM, a standard instrument for AAM as a vice chair. Also he has leading two national R&D projects.

Artificial Intelligence Technical Session

Rohit Israni

Rohit is the founder and CEO of CertientAI. He is also the Chair AI Standards for the US national body responsible for developing US positions and contributions to international AI standards being developed by ISO/IEC (ISO/IEC JTC 1/SC 42). He is also the liaison for SC 42 with Organization of Economic Co-operation and Development (OECD). Prior to founding CertientAI, he led Intel's global scale ecosystem enabling programs in the Developer Relations Division for AI, Datacenter and Network, of which he co-founded the AI partnership program (Intel AI Builders).

Rohit earned a Masters' degree in Engineering with a specialization in Robotics and AI from Tulane University. He also holds a Master's degree in Management Science & Engineering from Stanford University where he was a part of the Stanford Technology Ventures Program.

Wael William Diab

Wael William Diab is a business and technology strategist with more than two and half decades of executive experience at Fortune 500 companies in Silicon Valley. He is a prolific inventor with more than 900 patents to his name in the ICT field and an industry recognized expert on digital transformation. Skilled in leadership for breakout technology, Diab has architected strategy, driven industry-wide initiatives, cultivated partnerships, identified M&A opportunities and orchestrated company roadmaps for transformational fields including AI, IoT and sustainability.

Wael has BS and MS degrees in EE and BA in Economics from Stanford, and an MBA with honors from Wharton. He is a published author, having authored the book Ethernet in the First Mile: Access for Everyone. In 2011, Wael was recognized by the David Packard Medal of Achievement and Innovator Award for his leadership in Green Technology. In 2023, Wael received the ANSI Meritorious Service Award.

Wael has been active in standardization and related activities for over two decades. He chairs ISO/IEC JTC 1/SC 42, the international standardization committee on artificial Intelligence (AI) looking at the holistic AI, analytics and Big Data ecosystems. Wael led the development of and chairs the ISO/IEC AI workshop series. In September 2023, ISO recognized the ISO/IEC JTC 1/SC 42 (AI) committee and Wael, for his leadership, through the 2023 Lawrence D. Eicher Leadership Award. This prestigious award recognizes the significant contribution and superior performance of an ISO committee. Wael has led global AI forums such as at the 22nd Global Standards Collaboration (GSC-22).

At the Industrial Internet Consortium (IIC), Wael is the Secretary of the Steering Committee and chairs the Liaison Working Group, Technology Working Group, Industrial AI Task Group and Global Event Series Task Group. He is a lead author of the Industrial IoT AI Framework (IIAIF), Industrial Analytics: The Engine Driving the IIoT Revolution whitepaper and the Industrial IoT Analytics Framework (IIAF). He is a recipient of the IIC Individual Contributor Award. Wael is a member of the IoT Solutions World Congress Program Committee and chairs its AI forum.

Emmi Bane

Emmi Bane is a data ethicist and privacy sociologist at HP's Privacy Engineering Center of Excellence, and a Senior Fellow in Ethics and AI at the World Privacy Forum. She is a participant in SC 42, and represents "Responsible AI" initiatives for HP's AI policy working group. Her work focuses on consent and the social impact of technological phenomenology. She is currently managing the privacy and ethics review program for HP's AI/ML sandbox.

Dr. Young-Im CHO

Dr. Young Im Cho is a professor at computer engineering department in Gachon University in Korea. She is a Chief of AI and Smart City Laboratory at Gachon University and a board member of Korean Artificial Intelligent Association. Also, she is a HoD of Korea of ISO/IEC JTC 1/SC 42 and working at SC 43 BCI and TC 268 Sustainable cities and communities as an expert. She is a leader of AI industrial society organized by Ministry of Trade, Industry and Energy.

Currently, she is an advisor to the Ministry of Land, Infrastructure and Transport and Korea Agency for Technology and Standards and KATS. She is a member of the National Science and Technology Advisory Committee under Korea President. She was a chairman at Korean Institute of Intelligent Systems, a committee member of National Information Strategy Council under Korea President, and a committee member of Smart City in the 4th Industrial revolution under Korea President.

She is leading AI standardization roadmap with KATS to promote AI ecosystem in Korea. She has published more than 400 publications including Journals, conferences and 20 text and reference books. She received a big medal from Korea Government, and many academic awards from academic societies. She is a member of more than 50 editorial boards of international journals and conferences. Her interesting areas are standardization, artificial intelligence, smart city etc.

Dr. Jongwon KWON

Dr. Kwon is the Director and Principal Researcher at the Korea Testing Laboratory (KTL), where he leads the Industrial Intelligence Technology Center. He holds a Ph.D. in Electrical, Electronic, and Computer Engineering from the University of Seoul. With extensive experience in the field of Trustworthy Artificial Intelligence (AI), he is at the forefront of developing methods for AI conformity assessment and governance to ensure their trustworthiness and safety. Dr. Kwon is also an active contributor to international standardization efforts, particularly within ISO/IEC JTC1 standard sectors for AI, AIDC, IT Governance and Smart Wearable Devices, ensuring that his work aligns with and informs global trends.

Semiconductors Technical Session

Dr. Deok-kee KIM

Deok-kee Kim received the B.S. degree in Metallurgical Engineering from Seoul National University, Seoul, Korea in 1993 and Ph.D. degree in Materials Science and Engineering from Stanford University, California, USA in 2000. He joined IBM Semiconductor Research & Development Center (SRDC) at Hopewell Junction, NY, USA in 2000 where he worked on DRAM, embedded DRAM, and electrical Fuse (eFuse) technology development. He then joined Samsung Electronics Semiconductor Research & Development Center (SRDC) in 2007 where he worked on metallic eFuse, vertical type resistive memory and solar cells. Since 2011, he has been a Professor in the Electrical Engineering Department at Sejong University, Seoul, Korea. He worked as a program director at National Research Foundation (NRF) of Korea in nano & semiconductor technology division from Apr. 2020 to Aug. 2023.

His research focus is on the characteristics and reliability of semiconductor devices. He has published over 150 papers and holds over 150 patents. He has received POSCO Iron and Steel Prize in 1993 and several invention achievement plateaus from IBM and SKHynix. He serves as the technical director for the Korean Microelectronic and Packaging Society (KMEPS), convenor for devices and systems working group in IEC TC124 wearable smart devices committee, and the assistant secretary for IEC TC 47 semiconductor devices committee.

Dr. Jeongwon PARK

Dr. Park joined the Department of Electrical and Biomedical Engineering at the University of Nevada, Reno, NV, USA, as an Associate Professor in July 2019. Prior to that, he was an Associate Professor at the School of Electrical Engineering and Computer Science at the University of Ottawa, ON, Canada (2016-2021, currently: Adjunct Professor) and a scientist at SLAC National Accelerator Laboratory, Stanford University, USA (2014-2016). For six years (2008-2014), he served as a senior technologist to support the corporate chief technology officer (CTO) and business units at Applied Materials, CA, USA. In addition, he has been a guest researcher at the Lawrence Berkeley National Laboratories (2005-2008), an adjunct professor in the Department of Electrical Engineering at Santa Clara University (2009-2016), and a visiting scholar in the Department of Electrical Engineering at Stanford University, CA, USA (2013-2014).

Dr. Jeremy Muldavin

Dr. Muldavin graduated from the University of Michigan in 1995 with a BSE Engineering Physics and in 2000 with a PhD in Electrical Engineering Electromagnetics. He spent 19 years total at MIT Lincoln Laboratory, with 4 years assigned to Office of Secretary of Defense as the director of microelectronics. He spent 4 years at GlobalFoundries as a Distinguished Member of the Technical Staff, and recently joined Aerocyonics Inc, as a Senior Technical Fellow.

Daniel DiMase

Daniel DiMase is the CEO of Aerocyonics, Inc.. Mr. DiMase has over 30 years of experience as an expert and recognized industry leader in Supply Chain Risk Management, Operations, Logistics, Business Development, Counterfeit Parts Avoidance & Detection, Cyber Physical Systems Security, and Hardware Assurance. Mr. DiMase's work at Aerocyonics is focused on delivering innovation with state-of-the-art products and services that serve markets in defense and commercial industry. Mr. DiMase's current areas of focus includes consulting services, product development and commercialization of nano-machining equipment, 3D imaging, failure analysis tools, reverse engineering instruments, material characterization, advanced traceability tools, software solutions, furthering the development of STEM education, and research and development of advanced polymorphic and neuromorphic architectures of microelectronic devices beyond Moore's Law addressing low-power, radiation hardened, and security by design.

Dr. Cheolung CHA

Dr. Cheolung Cha is the Director of Smart Sensor Research Center, Korea Electronics Technology Institute. He is also a visiting professor in the School of Electrical Engineering, Korea University, Seoul, Korea, from 2008 and he serves the Technical Committee 47 (Semiconductor devices) in International Electrotechnical Commission (IEC) as a secretary from 2007.

His research interests are self-powered sensors and low power wearable and IoT sensors. He received “53rd IEEE ECTC Outstanding Paper Award" in 2004, "SMTA Outstanding Engineer Award" in 2008, “IEC Thomas Edison Award” in 2015, and "Industrial Technology Award and Medal" from Korean Government in 2015. He received the Ph.D. degrees in Electrical and Computer Engineering from Georgia Institute of Technology, Atlanta in 2004.

Quantum Technologies Technical Session

Dr. Haeseong LEE

Dr. Haeseong Lee is a material scientist working at Jeonju University as Professor.

His research area was initiated by correlation between structure and properties of materials. He had an opportunity to widen his experience on material characterization in 2002 when he appointed as Director of Jeonju Center at Korea Basic Science Institute specialized in development of innovative analytical methodologies on nanomaterials. His wide experiences to elucidate nanomaterials led him to their applications and industrialization.

Since he moved to Jeonju University as Professor in 2007, he has focused on collaboration between academia and industry through productizations of innovative materials such as nanomaterials and carbon materials.

His pragmatism on nanotechnologies triggered his interests on international standardization activities. His career on the field of international standardization started with a proposal of a new SC, the title of scanning probe microscopy, under ISO TC201 (Chemical Surface Analysis) in 2003. With the approval of his proposal he was appointed as Chair of the new SC9 under TC201 and had maintained the position until 2017. He was also involved in IEC activities when he established a TC under IEC, the title of printed electronics in 2011. Currently he has 3 convenors at ISO TC201 SC9 WG6 (ESPM), IEC TC113 WG14 (electromagnetic compatibility on nanomaterials), ISO TC61 (Plastics) WG5 (electrical, magnetic, electromagnetical and optoelectrical properties on polymers and composites)

Recently he moved toward quantum technology based on his experiences in analyzing superconductivity, basic quantum phenomena such as tunneling current, quantum conductance, etc. He was involved in standardization of quantum technology (QT) in the birth JTC3 and now serve as Chair.

Jai Singh Arun

Mr. Jai Singh Arun is an entrepreneurial executive with over 25 years of experience working with IBM for 19 years, and 6 years with Unisys, Tata Institute of Fundamental Research, and a start-up organization Diablo Technologies. He has a vital mix of business and technology leadership experience with varied functional skills in product management, corporate business strategy, marketing, sales enablement, software engineering and development, customer support for enterprise- class business solutions and services. He has built and led many multi-million dollars businesses driven by next generation technologies including Quantum Safe, Cybersecurity, Blockchain, Quantum Computing, Artificial Intelligence, and Cloud to penetrate new markets and industries.

Mr. Arun is currently spearheading global business strategy, product management, engineering, and go-to-market execution for IBM Quantum Safe Cryptography solutions including software technology and services as part of IBM Quantum business. Prior to this role, he led IBM's $1.5B Cybersecurity business strategy, product management and go- to-market execution for Security as a Service, Consulting, Systems Integration, Managed Security Services, and Integrated Solutions (Software and Services) across Cloud Security, Zero Trust, Identity and Access Management, Data and Application Security, Threat Intelligence & Management. Mr. Arun was a founding executive of IBM's Blockchain and led global strategy, product management, and business development for the technology platform known as Hyperledger Fabric along with Blockchain based Supply Chain and Trusted Digital Identity solutions.

Mr. Arun holds several USPTO granted patents and inventions published on ip.com. He earned an MBA degree in Strategy, Marketing and Finance from Kenan-Flagler Business School at University North Carolina, Chapel Hill, NC, USA and Master of Engineering in Computer Engineering from VJTI, University of Mumbai, India and Bachelor of Engineering in Computer Science from National Institute of Technology, Bhopal India. He also attended Harvard University for executive leadership and management program. He is a Certified Chief Information Security Officer (C-CISO from EC- Council), Certified Information Security Manager (CISM from ISACA), Certified in Cybersecurity (CC from ISC2) and Certified Project Management Professional (PMP from PMI).

Mr. Arun is an invited and featured speaker at many business and technology innovation conferences and events and academic institutes across the globe. He has written several emerging technologies blogs, articles. He is a co-author of "Blockchain for Business" book published in April 2019. His book has been ranked in top 50 Amazon's best-selling books in banking category and highlighted in Wall Street CIO Journal, and praised by many C-suite executives from Samsung, IBM, Digital Chambers of Commerce. Mr. Arun is a global mentor and advisor to many start-ups along with commercial and government organizations including North Carolina Blockchain Initiative (NCBI), RDU Airport CEO Taskforce, The Indus Entrepreneurs (TiE).

You may find more information about Jai on LinkedIn:
https://www.linkedin.com/in/jsarun/

Dr. Joon-Shik PARK

Dr. Joon-Shik Park is Chief Researcher at KETI (Korea Electronics Technology Institute), In this role, he leads and coordinates efforts in the quantum sensors areas of standardizations as the convenor of Ad-hoc Group 3 (Quantum Sensors (Sensing, Devices, and Imaging)) of IEC/ISO JTC3. He and Prof. Joonwoo Bae proposed the Sub-committee in terms of Quantum Sensors for 1st JTC3 plenary meeting at Seoul on 2024-05-28~30. He has been also in charge of KR NC secretary regarding JTC3 since 2022. Since 1994, he has researched diverse micro sensors using functional materials and MEMS technologies. And since 2001, he has been involved in IEC works including TC47 (semiconductor devices), SC47E (discrete semiconductor devices), SC47F (MEMS) as the convenor of WG2/MT1 from 2014, and TC119 (printed electronics) as the assistant secretary from 2014 to 2020. He was co-project leaders of three international standards for SC47F. He won the IEC 1906 award in 2007.

Dr. Hyojung KIM

Dr. Hyojung Kim is a Research Professor at the Institute of Basic Science in Kunsan National University, specializing in the optical characterization of carbon-based, semiconductor, and quantum materials. She initiated her involvement in standardization activities within IEC/TC113 WG8 in 2021 and has recently joined IEC/ISO JTC3, focusing on quantum technologies. She is leading projects that are establishing standards for single-photon emission measurements and analyzing the reduction degree of reduced graphene oxide. Hyojung earned her Ph.D. in Energy Science from Sungkyunkwan University in Korea, and her expertise is vital in advancing the field of material science through dynamic research and standardization efforts.

Dr. Joonwoo BAE

Dr. Bae received his Ph.D. from Universitat de Barcelona in 2007 while preparing his thesis titled ‘Entanglement and Quantum Cryptography’ at the ICFO-the Institute of Photonic Sciences. He is currently an Associate Professor at the Korea Institute of Science and Technology (KAIST). He is also a member of the Korea Academy of Science and Technology (KAST). The field of specialization is Quantum Information Theory which investigates information processing at the most fundamental level and finds its practical applications to information technologies. He has authored more than 60 publications in international journals of Physics, Mathematics, and Electrical Engineering, including a solution to the 22nd open problem in quantum information theory. He is a recipient of the Marie-Sklodowska-Curie fellowship in 2014, and a FRIAS alumni fellowship in 2017. He has earned Outstanding Reviewer Award and Trusted Reviewer Award from the Institute of Physics in 2022, and the Lim Hyung-Gyu Best Teach Award in 2024. He serves as an Editorial Board Member of the New Journal of Physics.

Dr. Seong Su PARK

Dr. Seong Su Park graduated from Yonsei University in Metallurgy in 1984 and received M.S. and Ph. D. degrees in Materials Science from Korea Advanced Institute of Science and Technology (KAIST) in 1986 and 1992 respectively. He joined the one of the largest government supported R&D institute, ETRI(Electronics and Telecommunications Research Institute) and developed high- speed optical communication laser diodes and wireless communication chipsets for Bluetooth, WLAN, WCDMA cell-phone. During 2006-2007, he was a visiting scholar at Department of EECS, UC Irvine, CA. Since 2012, he shifted to quantum information area and was the director of Quantum Technology Research Center at ETRI which was formed June, 2019. The QTR Center at ETRI developed the prototypes of superconducting qubit quantum computer, quantum communication for QKD, quantum imaging and quantum information theory. In 2021, he became the chair for publishing IEC white paper on quantum information technology and made a successful publishment with over 40 experts from the world. And he was the convenor of IEC SEG14 quantum technologies resulted in the establishment of IEC/ISO JTC 3. Also, he was a member of Quantum Technology Special Committee of Presidential Advisory Council on Science & Technology, Korea. Now, he is the convenor of ahG 4 quantum secure communication of IEC/ISO JTC 3. Since 2023, he is a professor at Hallym University, Korea.

Digital Identity Technical Session

Andrew Regenscheid

Andrew Regenscheid is the manager of the Cryptographic Technology Group, where he leads NIST's development of cryptographic standards and guidelines. In his 15 years within NIST's Computer Security Division, Andrew has worked to apply cryptographic algorithms and tools to improve the security of computer platforms, communication protocols, and authentication mechanisms. As the technical lead for the Personal Identity Verification standards program, Andrew is responsible for developing identity management standards and technical guidelines for federal government employees and contractors, while also contributing to NIST's broader portfolio of digital identity guidance as a coauthor of NIST SP 800-63.

Dr. Yong Gyu JUNG

Dr. JUNG is a professor at Eulji University and expert at Korean Agency for Technology and Standards (KATS) for over 20 years. He was a HoD of ISO/TC 154 and now have been in charge of HoDs of ISO/TC 268 and ISO/IEC/JTC 1/SC 17 Korea.
He was interested in smart city service for Hospital, Bank and Transport. And now He joins a team for Digital Driver's License.
In this role, he leads and coordinates efforts in the areas of standardization in Korea as now.

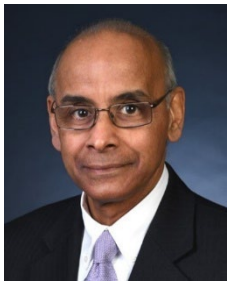
Taejin KIM

Taejin Kim is the CTO at RaonSecure, In this role, he leads research & development center and coordinates efforts in the areas of standardization. He has worked for more than 20 years to develop the security and digital ID domains, and in 2022, he designed, developed, and built a mobile driver's license promoted by the Korean government. He also contributed to the standardization of TTA, the local standard for Korea's mobile driver's license.

Special Session on Standards Education

Dan Smith

Dan has worked at ASTM for 32 years. He has spent his career at ASTM in Technical Committee Operations as a staff manager, director, assistant vice president, and now vice president of Technical Committee Operations. The Division contains several departments including standards development, editorial, books and journals, membership, interlaboratory study programs, committee services, symposia, and meetings. Dan received an undergraduate degree in Commerce and Engineering with a concentration in Operations Management and an MBA from Drexel University in Philadelphia, Pennsylvania



Dr. S. Shyam Sunder

Dr. Shyam Sunder is Director of the Special Programs Office, Chief Data Officer, and Acting Director of the Standards Coordination Office at the National Institute of Standards and Technology, U.S. Department of Commerce. In these roles, he plans and manages high-profile programs that address national needs for measurement science and standards in priority areas, including critical and emerging technologies.

Dr. Sunder established and managed the NIST Safety Commission which issued a comprehensive set of findings and recommendations to improve NIST's safety culture and the effectiveness of its safety protocols and policies. In response to the CHIPS for America Act, he led and guided NIST's cross-laboratory team that engaged over 800 stakeholders to assess and publish seven strategic Grand Challenges in measurement, standardization, and modeling/simulation to advance the U.S. semiconductor industry.

Dr. Sunder served as Senior Science Advisor to the Deputy Secretary of Commerce (2013-17) and Senior Science Advisor at NIST (2017-20). He provided leadership for NIST's Return on Investment (ROI) Initiative to advance the President's Management Agenda by assessing and accelerating the transfer of technology from Lab-to-Market, transformed the Commerce Department's Office of the Chief Information Officer via significantly improved services and cybersecurity, and repositioned the National Technical Information Service, a Commerce Department bureau, to deliver data services through joint venture partnerships with the private sector.

Dr. Sunder is a recipient of the Presidential Rank Award of Distinguished Executive (2017), and the Gold Medal Award (2005) from the U.S. Department of Commerce, its highest honor, for distinguished leadership of the federal building and fire safety investigation of the World Trade Center Disaster after the terrorist attacks of September 11, 2001. He was elected to the National Academy of Construction in 2012. Dr. Sunder and the 10-member team he led were awarded NIST's George A. Uriano Award (2023) "For positioning NIST and DOC to successfully implement core CHIPS for America Act programs to revitalize U.S. leadership in semiconductor manufacturing." He also received the Equal Employment Opportunity Award (1997) from NIST, the Walter L. Huber Civil Engineering Research Prize (1991) from the American Society of Civil Engineers, and the Gilbert W. Winslow Career Development Chair (1985-87) and Henry L. Doherty Professorship in Ocean Utilization (1987-89) from MIT.

Lisa Rajchel

Lisa joined ANSI in February 1983 as an Assistant Program Administrator supporting the Department Head in the administration of several IT international standards programs. In 1994, with her promotion to Program Director, Lisa assumed responsibility as Committee Manager for ISO/IEC JTC 1 on Information Technology as well as oversight responsibility for all ANSI Directly Administered Secretariat staff. JTC 1 was the 1st joint technical committee of ISO and IEC with more than 3500 published standards and over 500 active standards projects addressing topics such as the Internet of Things, Artificial Intelligence, IT privacy and security and Biometrics. At various times in her career, Lisa also served as Committee Manager for ISO/IEC JTC 1/SC 32 (Data management and interchange), ISO/IEC JTC 1/SC 37 (Biometrics) and ISO/IEC JTC 1/SC 38 (Cloud computing and distributed platforms).

Since 1997, Lisa has served as Senior Director, Directly Administered Secretariats and Training and Education. In this position, she manages and oversees the development of more than 1000 active standards projects covering such diverse technical areas as Information Technology, Tires, Tractors and Machinery, Safety of Toys and Mobile Cranes. From 1994 to the present, Lisa has served as Committee Manager for ISO/IEC JTC 1.

In addition, Lisa serves as staff liaison for the Institute's Committee on Education responsible for the Institute's Education and Training activities and is also responsible for the oversight of ANSI's Consumer Interest Forum and ANSI's representation on COPOLCO.

Eung Ro (Roy) LEE

- 2024.06. – Present Director, International Standards Cooperation Division, KATS & Secretary of Korean MB of ISO and Korean NC of IEC
- 2022.09. – 2024.06. Director, Electrical & Telecommunications Product Safety Division, KATS & Secretary of Korean MB of IECEE
- 2019.12. – 2022.09. Deputy Director, WTO TBT Division, KATS
- 2017.11. – 2019.12. Deputy Director, International Standards Cooperation Division, KATS

- 2017.06. – 2018.09. Coordinating a global academic paper competition on standardization, “IEC-IEEE-KATS Academic Challenge - Future Challenges in Standardization”.
- 2017.04. – 2018.11. Task-force Leader, Organizing Office of the IEC General Meeting BUSAN 2018
- 2007.01. – 2021.12. IEC CAB (Conformity Assessment Board) Korean alternate member
- 2008.03. – 2017.04. Responsible for Korean national standardization policies & Management Board of Korean Standards at KATS
- 2002.11. – 2008.03. Responsible for Korean national standards and KS certification mark scheme of the electrical and electronic products at KATS
- 2002.01. – 2002.11. Researcher in flexible display R&D Team, Samsung SDI Central Research Institute