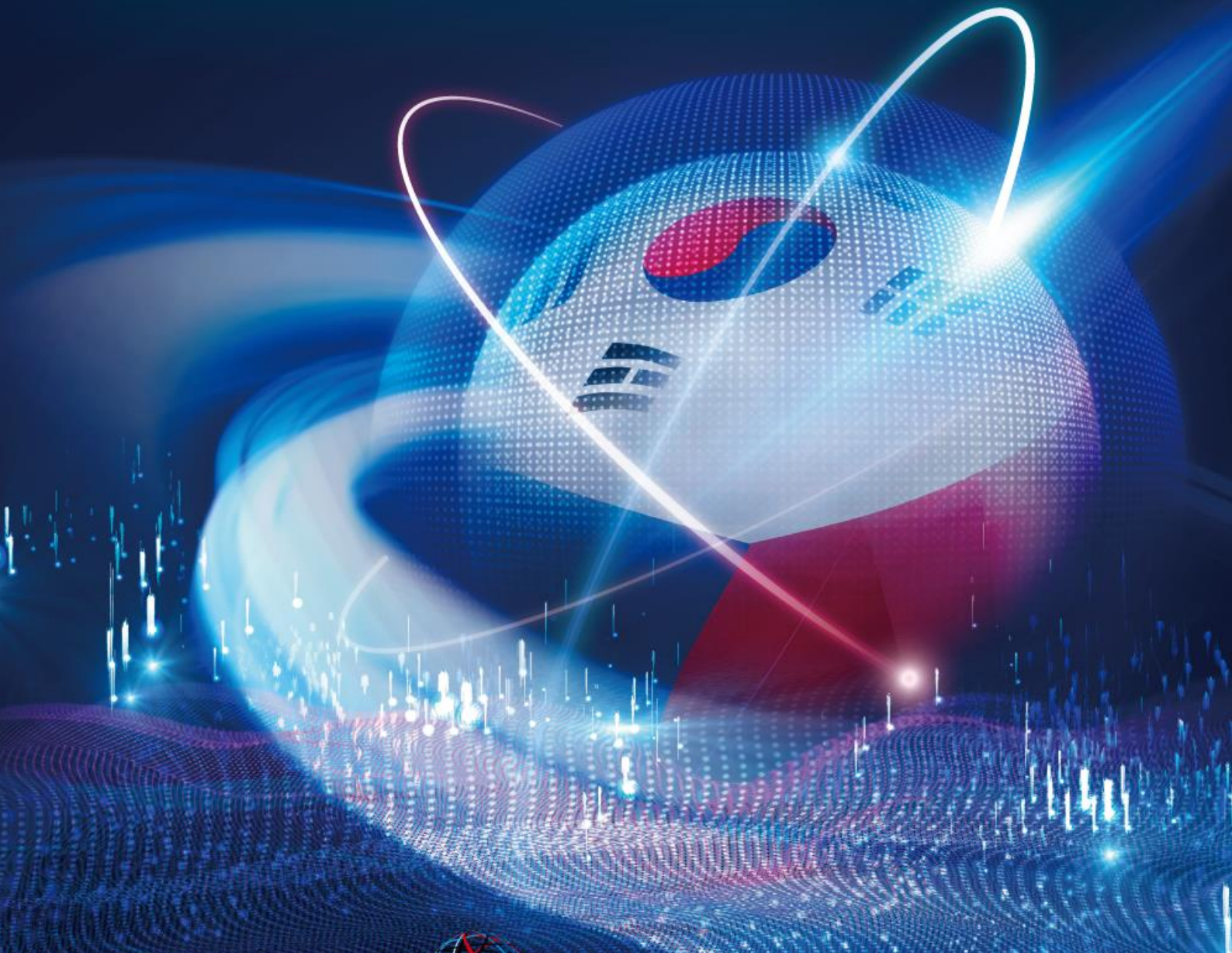
Korea-Czech Republic
Industry & Energy Technology Cooperation Forum 2024

Friday, September 20, 2024

The President Hotel Prague, the Czech Republic



Ministry of Trade, Industry and Energy

MINISTRY OF INDUSTRY AND TRADE

beyond leading technology KIAT Korea Institute for Advancement of Technology

KETEP KEIT '15 TACR

I. OVERVIEW

Purpose

Present technology trends and industry and energy policies and explore opportunities for collaboration to enhance cooperation in advanced technologies between Korea and the Czech Republic.

Date ***September 20, 2024 - 1:00 PM (CEST)***

Venue The President Hotel Prague, Prague, the Czech Republic

* Address: Nám. Curieových 1, 110 00 Josefov, Prague, the Czech Republic

Participants

Government, R&D institutions, industry, research institutes and academia

- Korea: Ministry of Trade, Industry, and Energy (MOTIE), KIAT, KETEP, KEIT, KDI & etc.
- The Czech Republic: Ministry of Industry and Trade, Technology Agency of the Czech Republic (TACR), researchers for the joint R&D projects, etc.

Sectors

Electric Vehicle (EV), Battery, Machinery, Robotics, Nuclear, and Hydrogen Sectors

Major Agendas

Present policy initiatives and collaborative programs from both nations, highlighting key technology trends and offering proposals for future cooperation.

- Host specialized seminars on technology cooperation across six key sectors: electric vehicles (EV), batteries, artificial intelligence (AI), robotics, nuclear energy, and hydrogen.
- Enhance bilateral cooperation by facilitating the signing of Memoranda of Understanding (MOUs) between leading institutes from both countries during the Forum.

II. PROGRAM

12:00~	**REGISTRATION**	
13:00-13:15 (15'')	**OPENING SESSION** ◆ **Opening Remarks** Byungjoo Min, President, Korea Institute for Advancement of Technology (KIAT) ◆ **Congratulatory Remarks** Petr Třešňák, Vice Minister, Ministry of Industry and Trade (MIT) / Jaehong Kim, Chairman, H2KOREA ◆ **Welcome Remarks** Yoonjong Chun, President, Korea Planning & Evaluation Institute of Industrial Technology (KEIT) Seungjae Lee, President, Korea Institute of Energy Technology Evaluation and Planning (KETEP)	
13:15-13:45 (30'')	**KEYNOTE SESSION** ◆ **Current State and Prospects of the Czech-Korean Cooperation in the Area of New Technologies** Petr Očko, Deputy Minister, Ministry of Industry and Trade (MIT) ◆ **Korea-Czech Cooperation: Empowering Emergence as Key Global Economic Hubs** Byungjoo Min, President, Korea Institute for Advancement of Technology (KIAT) ◆ **Bilateral Cooperation between TACR and Korea** Petr Konvalinka, Chairman, Technology Agency of the Czech Republic (TACR)	
13:45-14:10 (25'')	**TECHNOLOGY COOPERATION SESSION** ◆ **Korea-Czech Technology Cooperation Platform and Key Achievements** Yooduk Jun, Executive Director, International Cooperation Center, Korea Institute for Advancement of Technology (KIAT) ◆ **Global Cooperation R&D & Korea-Czech Republic Cooperation** Yongkuk Kim, General Director, Korea Planning & Evaluation Institute of Industrial Technology (KEIT) ◆ **Korea- Czech Energy R&D Cooperation Status and Plan** Seungyoung Chung, Director, Korea Institute of Energy Technology Evaluation and Planning (KETEP) ◆ **Korea-Czech Republic Cooperation Strategies - from KSP to EIPP** Jungwook Kim, Executive Director, Korea Development Institute (KDI)	
14:10-16:55 (165'') **10min. each**	**RESEARCH AND DEVELOPMENT SESSION**	
	EV	◆ **Cyber Security for EV Bi-directional Charging System in Combination with V2G Technology** Youjun Choi, Principal Researcher, Korea Automotive Technology Institute (KATECH) ◆ **Trends in the Czech Republic Automotive Industry and Cooperation Strategies** Zdeněk Lokaj, Professor, Czech Technical University in Prague (CTU)
	Battery	◆ **Battery Technology in KOREA and KETI & Future Collaboration between BUT and KETI** Goojin Jung, Chief Researcher, Korea Electronics Technology Institute (KETI) ◆ **Current Status of Battery R&D at Brno University of Technology (BUT)** Tomáš Kazda, Associate Professor, Brno University of Technology (BUT)
	Machinery, Photonics, Materials	◆ **Digital Twin-Based Autonomous Manufacturing of Generator & Aviation Engine Core Parts** Changju Kim, Principal Researcher, Korea Institute of Machinery and Materials (KIMM) ◆ **RCMT Skills and Relevant Industrial Collaboration in the Field of Machine Tool Development and Turbine Blade Manufacturing** Matej Sulitka, Deputy Head of the Institute for the Development Cooperation, Czech Technical University in Prague (RCMT CTU) ◆ **High Power Ultra Short Pulsed Laser** Sanghoon Ahn, Head of Dept., Korea Institute of Machinery and Materials (KIMM) ◆ **The Current Status of Photonics Industry and KOPTI in the Republic of Korea** Juhyeon Choi, Director, Korea Photonics Technology Institute (KOPTI) ◆ **Active Fibers for High-power Fibers Lasers: Recent Progress at the Inst. of Photonics and Electronics of the Czech Academy of Sciences** Pavel Peterka, Director, Institute of Photonics and Electronics of the Czech Academy of Sciences (UFE)
		◆ **Break**
	Nuclear	◆ **Current Status of Joint Research in Nuclear Energy & Future Cooperation Directions** Seunghan Yang, General Manager, Korea Hydro & Nuclear Power (KNHP) ◆ **Introduction of UWB and Current Status of Czech Republic in Nuclear Technology** Radek Škoda, Professor, University of West Bohemia
	Hydrogen	◆ **R&D of Clean H2 Production Technologies in the republic of Korea** Seondong Kim, Chief, Korea Institute of Energy Research (KIER) ◆ **Strategies for Hydrogen Energy Innovation and Korea-Czech Hydrogen Cooperation Initiatives** Šárka Cabadová Waisová, Senior specialist for strategies and legislation, HYTEP
	AI, Robotics	◆ **Industrial AI Applications - Generative AI and Applications** Seungwoo Kum, Chief Researcher, Korea Electronics Technology Institute (KETI) ◆ **Artificial Intelligence and Robot Cognition in the Czech Republic** Pavel Zemčík, Vice Dean, Brno University of Technology (BUT)
16:55-17:15 (20'')	**Coffee Break**	
17:30-18:00 (30'') *Please be seated by 17:20	**MOU SIGNING CEREMONY** ◆ **Greetings** **Dukgeun Ahn, Minister, Ministry of Trade Industry and Energy (MOTIE)** **Jozef Síkela, Minister, Ministry of Industry and Trade (MIT)** ◆ **Ceremony for Korea-Czech Republic Cooperation MOUs**	
18:00~	**NETWORKING Dinner**	

III. List of MOU

1) MOU for Industry Technical Cooperation

Korea Institute for Advancement of Technology (KIAT)	Technology Agency of the Czech Republic (TACR)

2) MOU for Building the Workforce of the Future in Advanced Industry

Korea Institute for Advancement of Technology (KIAT) Sungkyunkwan University (SKKU)	Charles University (CU) Masaryk University (MU)

3) MOU for Energy Technology Cooperation

Korea Institute of Energy Technology Evaluation and Planning (KETEP)	Technology Agency of the Czech Republic (TACR)

4) MOU for Advanced Robotics Technology Collaboration

Korea Planning & Evaluation Institute of Industrial Technology (KEIT) Korea Electronics Technology Institute (KETI) Korea Institute for Robot Industry Advancement (KIRIA)	Czech Technical University in Prague (CTU)

5) MOU for Quadrilateral Cooperation in Precision Machinery

Korea Institute of Machinery & Materials (KIMM) Korea Planning & Evaluation Institute of Industrial Technology (KEIT) SMEC Machine tools	Czech Technical University in Prague (CTU) Tools-Machines-Technological Services (TGS)

6) MOU for Cooperation in Optics

Korea Institute of Machinery & Materials (KIMM)	Institute of Physics of the Czech Academy of Sciences (FZU)

7) MOU for Technical Cooperation in Photonics

Korea Photonics Technology Institute (KOPTI)	Institute of Photonics and Electronics of the Czech Academy of Sciences (UFE)

8) MOU for Technical Cooperation in the Field of Optical Material Components

Korea Photonics Technology Institute (KOPTI)	Meopta s.r.o

9) MOU for Nuclear Engineering and R&D Cooperation

FNC Technology	TES s.r.o.

10) MOU to Promote International Cooperative Research

Korea Institute of Energy Research (KIER)	Czech Technical University in Prague (CTU)

11) MOU for Cooperation in Hydrogen

H2KOREA (Hydrogen Convergence Alliance)	The Czech Hydrogen Technology Platform (HYTEP)

12) MOU for Nuclear Clean Hydrogen Technology Development and Business Cooperation

Korea Hydro & Nuclear Power (KHNP)	The Czech Hydrogen Technology Platform (HYTEP)

IV. Participating Organizations from Korea

Korea Institute for Advancement of Technology (KIAT)	
beyond leading technology KIAT Korea Institute for Advancement of Technology	Support a variety of innovation activities within the industrial technology innovation ecosystem through successful Industry-University-Institute Collaboration
Korea Institute of Energy Technology Evaluation and Planning (KETEP)	
KETEP Korea Institute of Energy Technology Evaluation and Planning	Energy R&D Agency Leading Carbon Net-Zero with creating Values for the Future via Energy Technology Innovation and Related Industry Development,
Korea Planning & Evaluation Institute of Industrial Technology (KEIT)	
KEIT Korea Planning & Evaluation Institute of Industrial Technology	Specializing in the planning, evaluation, and management of industrial technology research and development(R&D), aims to lead this historic tide
Korea Development Institute (KDI)	
KDI Korea Development Institute	Reaching objective conclusions through science-based research is not only a source of pride as a world-renowned think tank but also an essential element for the leadership in the social discourse
Korea Automotive Technology (KATECH)	
KATECH KOREA AUTOMOTIVE TECHNOLOGY INSTITUTE	Develop core automotive technologies and provide various technical supports related to the reliability and certification of automotive components.
Korea Electronics Technology Institute (KETI)	
KETI Korea Electronics Technology Institute	Secure global leadership in digital and green technology which initiates building of a new supply chain and a major industrial transformation, centering around their key industrial technologies
Korea Institute of Machinery & Materials (KIMM)	
KIMM KOREA INSTITUTE OF MACHINERY & MATERIALS	Contribute to the nation and its industries by conducting R&D in core technologies and commercialization, reliability tests and evaluations of machineries and materials.

Korea Photonics Technology Institute (KOPTI)	
KOPTI	Growing the photonics convergence industry and operate an innovation platform to create a technology-based start-up ecosystem for the photonics convergence industry
Korea Hydro & Nuclear Power (KHNP)	
KOREA HYDRO & NUCLEAR POWER CO., LTD	The noble sense of mission and pride of 'supplying electric power in a stable manner to enrich the lives of people and to contribute to the growth of the national economy' as its driving force.
Korea Institute of Energy Research (KIER)	
KIER KOREA INSTITUTE OF ENERGY RESEARCH	Generating numerous world-class research achievements in hydrogen production and utilization technologies, renewable energy innovation technologies, smart energy efficiency technologies, and clean energy technologies
H2KOREA (Hydrogen Convergence Alliance)	
H2KOREA Hydrogen Convergence Alliance	Achieving a low-carbon hydrogen economy society at an early stage, to expand hydrogen energy society and to develop hydrogen-related industries gathering capabilities
Sungkyunkwan University (SKKU)	
SUNG KYUN KWAN UNIVERSITY(SKKU)	Leading the development of higher education in Korea by challenging and innovating with a mind for sharing and coexistence
FNC Technology	
FNC FNC TECHNOLOGY CO., LTD.	The best engineering companies in the world and provides technical services and engineering solutions as integrated engineering services in energy industry as well as nuclear power
SMEC Machine tools	
SMEC	Striving to diversify our revenue streams, develop new technologies and reduce costs in the face of the uncertain economic changes and recession
Korea Institute for Robot Industry Advancement (KIRIA)	
KIRIA KOREA INSTITUTE FOR ROBOT INDUSTRY ADVANCEMENT	KIRIA aims to build a future-oriented manufacturing environment through the robot industry, create a smart society, and drive the digital transition of the government

V. Participating Organizations from the Czech Republic

Technology Agency of the Czech Republic (TACR)	
T A C R	Enhance and encourage cooperation between research organizations supported by the state and the business sector. Within its programs, projects of applied research, experimental development and innovations are elected and financed
Charles University (CU)	
Charles University	Strives to achieve high standards in joint international scientific projects, is active in a number of prestigious international organizations and university networks and actively supports international mobility of students and academic staff
Masaryk University (MU)	
MUNI Masaryk University	Create a Sustainable Development Strategy during 2024 in accordance with its Strategic Plan for 2021-2028! In 2025, its individual faculties and institutes will follow suit
University of West Bohemia (UWB)	
UNIVERSITY OF WEST BOHEMIA	Having the ambition to conquer the world. This is where we lead our students. We provide them with quality education, develop their skills, and show them how to move forward
Czech Technical University in Prague (CTU)	
CZECH TECHNICAL UNIVERSITY IN PRAGUE	One of the oldest technical universities in the world with a 316-year tradition of outstanding achievements and academic reputation
Tools-Machines-Technological Services (TGS)	
TGS	Design to implementation, including suitable technologies, through the supply of the respective machines and tools, right up to tuning the whole mechanism, with subsequent service
Institute of Physics of the Czech Academy of Sciences (FZU)	
FZU Institute of Physics of the Czech Academy of Sciences	A public research institution in the Czech Republic and a part of the Czech Academy of Sciences. The Institute specializes in fundamental and applied research across five fields: particle physics, condensed matter physics and solid-state physics, optics and physics of plasma
Institute of Photonics and Electronics of the Czech Academy of Sciences (UFE)	
ÚFE Institute of Photonics and Electronics The Czech Academy of Sciences	Fundamental and applied research in the scientific fields of photonics, optoelectronics and electronics. In these fields, UFE generates new knowledge and develops new technologies

Meopta s.r.o	
	From precision medical and scientific instruments to digital cinematic projectors, aerospace technologies, military weapon systems and consumer sports optics, Meopta's unparalleled experience allows it to design, engineer and manufacture a diverse array of high-quality products across a broad spectrum of markets and industries, making it a global leader in the optical field
TES s.r.o.	
	Specialize in the field of nuclear power industry engineering services and technical support of nuclear power plant operation. Reliable supplier of Czech NPP operator and foreign companies involved in power industry
Institute of Chemical Process Fundamentals (ICPF)	
	Public research institution focusing on research in the field of chemistry, new materials, and a number of engineering disciplines. Also focus on applied research, where we transform gained knowledge and ideas into concrete outputs with social impacts
Technical University of Ostrava (TUO)	
	Connecting technical, economic, natural sciences and artistic disciplines in modern study programs for more than 175 years responding to the real problems of the present
The Czech Hydrogen Technology Platform (HYTEP)	
	Create a tool to support mutual awareness of bodies active in the area of hydrogen technologies and to coordinate activities related to the development of these applications
Brno University of Technology (BUT)	
	Standing at the forefront of Czech technical education and R&D since 1899, we are renowned for our interdisciplinary approach, delivering cutting-edge results across ICT, Engineering, Chemistry, and the Humanities.