



SUMMARY REPORT

CKC 2024

Canada-Korea Conference on Science & Technology

June 16-20, 2024

Banff Centre for Arts and Creativity

Banff, Alberta, Canada

AKCSE hosts 14th Canada Korea Conference (CKC) on Science and Technology

The Association of Korean-Canadian Scientists and Engineers (AKCSE) was established in 1986 as a non-profit professional organization and has grown to nearly 3,000 registered members with 11 Local Chapters, 17 University Chapters, 8 Young Professional Societies, and 4 Professional Societies across Canada. With a theme “Accelerate Transition to a Sustainable Future”, AKCSE successfully hosted 14th CKC in Banff over 430 participants with 24 Sponsoring Organizations.

CKC 2024 OVERVIEW

- Date June 16(Sun) - 20 (Thu), 2024
- Venue Banff Centre for Arts and Creativity, Banff, Alberta, Canada
- Theme Accelerate international collaboration by unlocking the power of science and technology
- Co-organizers Korean Federation of Science and Technology Societies (KOFST)
Association of Korean-Canadian Scientists and Engineers (AKCSE)



CKC 2024 KEY EVENTS

- 8th STI Forum: Sustainable international cooperation
- Sustainable International R&D Collaboration Summit
- AI Forum & Quantum Technologies Forum
- Clean Energy and Technology Forum
- Canada-Korea Battery Value Chain Workshop
- Research Showcase: KGRI
- Korean Government Research Institutes R&D Session
- Young Generation & Young Professional Conference
- Funding Agency: KEIT, IITP and KIMST Programs
- WiSE Session: KOFWST, KWSE



CKC 2024 BY THE NUMBERS

About 438 Participants
80 YG and YP Participants
4 Young Generation and Young Professional Programs
17 Special Sessions, 6 Technical Sessions, 1 Research Showcase
5 Forums and 1 Workshops
24 Sponsoring Organizations



Remarkable Experiences at CKC 2024

CKC is the most important activity of the AKCSE. Since 2011, the annual conference has been an excellent opportunity for presenting our latest research, innovative proposals, and networking. CKC 2024 was a great success comprising technical programs, special sessions, and the Young Generation and Young Professional programs.

OPENING CEREMONY



PLENARY SPEAKERS & SPECIAL SPEECH

- **Strengthening of Global R&D in Korea- Focusing on Advanced Bio, Quantum, and AI**
Chang Yune Lee, Vice Minister, Ministry of Science and ICT, Korea
- **Sustainability in S&T Collaboration between Canada and Korea to drive resilient societies**
Dr. Lakshmi Krishnan, Vice-President, Life Sciences, National Research Council, Canada
- **Towards Net-Zero Emission Energy Systems in Canada**
Dr. David B. Layzell, Emeritus Professor and Energy Systems Architect, University of Calgary & The Transition Accelerator
- **Lean Electrolyte Lithium Metal Batteries**
Dr. Hee-Tak Kim, Professor and Head, LG energy solution-KAIST battery research center, KAIST
- **Pioneering the Final Frontier**
Dr. Tai Sik Lee, President, Korean Federation of Science and Technology Societies
- **Alberta, Canada: South Korea's strong economic partner in the hydrogen & critical minerals**
Victor Lee, Alberta Government Representative in Korea, Counsellor, Canadian Embassy in Korea, Government of Alberta

CKC Welcomes AKCSE Family & Delegates

CKC 2024 was an excellent opportunity for exchanging our latest research and technologies for a sustainable future. Research collaboration sessions provided overview and potential of Korea-Canada ST&I collaboration landscape and its challenges.

WELCOME RECEPTION



BANQUET



Sustainable International R&D

This session is introducing the organization's unique tasks and missions under the theme of 'Accelerate international collaboration by unlocking the power of science and technology'. The session aims to achieve two main goals: providing everyone with widespread access to international collaboration in science and technology, and effectively tackling global challenges. It served as a dynamic platform for participants to engage in discussions regarding the influence of science and technology on international collaboration in both countries, the strategic direction of national research institutes, and international research networks for joint research between Canada and Korea.

SUSTAINABLE INTERNATIONAL R&D COLLABORATION SUMMIT (PLENARY I AND STI FORUM)



Three distinguished presenters delivered plenary presentations on sustainable international R&D cooperation. First keynote speech, delivered by Sunghoon Hwang, Director General, International Cooperation Bureau on behalf of First Vice- Minister Chang Yune Lee, emphasized the importance of innovation and digital transformation in driving economic growth, highlighting strategic initiatives and collaborative efforts essential for sustainable development and competitiveness. Dr. Lakshmi Krishnan's presentation described Canada's effort to enhance science, technology, and innovation ties with the Indo-Pacific, particularly Korea, as a key partner.



Efforts include leveraging the Canada-Korea Science, Technology and Innovation Agreement to address global challenges. Dr. Krishnan, Canadian Co-Chair of the Canada-Korea Joint Committee, also discussed the evolution and future of this collaboration to build resilient societies. Lastly, KOFST President Tai Sik Lee's presentation provided an overview on the development of Korea's space economy and the ongoing scientific development plans.



Collaboration Summit

'Accelerate international collaboration by unlocking the power of science and technology'. The session aims to achieve two main goals: providing everyone with widespread access to international collaboration in science and technology, and effectively tackling global challenges. It served as a dynamic platform for participants to engage in discussions regarding the influence of science and technology on international collaboration in both countries, the strategic direction of national research institutes, and international research networks for joint research between Canada and Korea.

STI FORUM

This session is introducing the organization's unique tasks and missions under the theme of 'Accelerate international collaboration by unlocking the power of science and technology'. The session aims to achieve two main goals: providing everyone with widespread access to international collaboration in science and technology, and effectively tackling global challenges. The STI forum will center its attention on the topic of "International collaboration in science and technology in Canada and Korea." It will serve as a dynamic platform for participants to engage in discussions regarding the influence of science and technology on international collaboration in both countries, the strategic direction of national research institutes, and international research networks for joint research between Canada and Korea.



Canada-Korea Joint Committee Meeting (CKJCM)

The 4th Meeting of the Canada-Korea Joint Committee (CKJCM) For Science Technology and Innovation(STI) Cooperation was held during the CKC2024.



AI Forum and Quantum Technology Forum

AI and quantum computing are the most promising future technologies to solve various issues that no traditional technology can solve in any feasible amount of time and resources. Experts from both countries gather to discuss insights and visions of AI and quantum computing technologies

AI Forum

This technology forum co-hosted by ETRI and AKCSE aims to bring together experts from Korea and Canada to discuss about advancement in Artificial Intelligence (AI) and explore potential collaboration opportunities. AI-related experts in Korea and Canada are discussing sustainable AI development projects. In the keynote speech, Professor Randy Goebel, a member of the University of Alberta and co-founder of the Alberta Machine Intelligence Institute (Amii), shared his experience on the development of AI, followed by Professor Ilbin Kim from the University of Alberta and Seokbeom Ko from the University of Saskatchewan. Presentations were made by Professor Gunho Son of York University, Dr. Gwangju Kim from ETRI, and Dr. Shinhyuk Joo from Southwest Research Institute.



Quantum Technologies Forum

Quantum technology is expected to bring innovation across future industries such as computers, communications, sensors, and cryptography, so there is an urgent need to discuss ways to cooperate to create a global research ecosystem. In this session, 4 experts were invited from Korea (Busan Metropolitan City, KAIST) and Canada (National Research Council Canada, University of Calgary) to discuss quantum technology policies and areas of interest in both countries, and to share specific research examples such as optimization using the quantum computing approach.



RESEARCH SHOWCASE

This session is organized for the Korea Government Research Institutes (KGRIs) to promote research collaboration between Canada and Korea. This year, five prominent KGRIs— Korea Research Institute of Chemical Technology (KRICT), Korea Institute of Energy Research (KIER), Korea Electrotechnology Research Institute (KERI), Korea Institute of Civil Engineering and Building Technology (KICT), and Korea Institute of Science and Technology (KIST)—have showcased their cutting-edge research projects. During the session, each institute provided comprehensive information on various aspects of their projects, including detailed descriptions of research topics, clearly defined objectives, and outcomes. By presenting this information, the KGRIs aimed to identify potential areas for collaboration, share knowledge and expertise, and discuss the potential for joint ventures and partnerships. The session facilitated an exchange of ideas and laid the groundwork for future collaborative efforts, enhancing the global impact of their research initiatives.

This workshop also served as a great networking platform, allowing YGP Participants to connect with the Alumni and their YGP peers. Alumni took the opportunity to encourage other YGP participants to apply for this once-in-a-lifetime experience, emphasizing the profound impact it had on their personal and professional journeys. Together, the participants explored ways to enhance the YGF/YPF experience, ensuring that future participants can fully maximize the opportunities and benefits offered by the forums.



TECHNICAL SESSIONS



There were six parallel-track technical sessions to promote research discussions and collaborations in the areas of 1) Biological Sciences, Biomedical Engineering and Health Sciences, 2) Artificial Intelligence and its applications, Quantum Technologies, 3) Mechanical, Civil and Aerospace Engineering – I, 4) Mechanical, Civil and Aerospace Engineering – II, 5) Material Science, Physics, Nano, 6) Smart City. 33 presentations were made to promote research discussions and international collaboration. They introduced each other's research and expanded their networks among Korean and Canadian Scientists.



Clean Energy and Technology Forum

The session aims to create opportunities for professionals to connect and collaborate and encourage the development and adoption of new solution for clean energy and sustainable technology.

Clean Energy and Technology Forum (Plenary II)



Dr. David B. Layzell introduced Canada's efforts to achieving net-zero greenhouse gas emission through a keynote speech session. In the second session, Kim Hee-tak, a professor at KAIST, discussed the research achievements of Lean Electrolyte Lithium Metal batteries and efforts for opportunities regarding the rapidly changing future energy. In the third session, Victor Lee of Alberta Government Representative in Korea introduced economic cooperation between Korea and Canada regarding hydrogen fuel and rare minerals, and introduced future strategies for mutual development between the two countries.



Hydrogen/Fuel cell/CCUS

In this session, researchers from leading Canadian institutions (Univ. of Victoria, Univ. of Calgary, Toronto Metropolitan Univ.) presented their work related to hydrogen, fuel cells, and CCUS (Carbon Capture, Utilization, and Storage). Specific research topics that were presented were: (1) optimizing the porous transport layers in Proton Exchange Membrane-based electrolysis systems using advanced manufacturing techniques and modeling, (2) developing comprehensive hydrogen sensor systems for safe pipeline transport of hydrogen/LNG gas mixtures, and (3) the development and application of electrochemical conversion device for carbon dioxide conversion to formic acid. Experts from government research institutes, universities, and industry attended to share and discuss the current state and strategies for the research and development of hydrogen and CCUS technologies. Potential collaborative projects were discussed between the session presenters and the audience during and after the session.



Clean Energy & Environment



It consists of sessions to promote various research contents in the eco-friendly field to cope with climate change and to understand widely applied cases. A total of six Canadian/Korean researchers introduced their research fields and achievements. Professor Seung-yong Jeong (Korea University of Education), who gave a keynote speech, introduced the research contents that had been successful by bringing research conducted in Canada to Korea. It was an opportunity to discuss the cooperation plan between the two countries by showing various cases applied in industry/research institute/academic.

R&D Brainstorming Sessions,

For providing a friendly platform, the CKC has hosted R&D Brainstorming Sessions, Special Sessions, and Forums for participants and delegates from Korea and Canada. This is one of the CKC's intrinsic functions. In particular, CKC 2024 was highly meaningful

Canada-Korea Battery Value Chain R&D Workshop

The 2024 Canada-Korea Battery Value Chain Workshop was held facilitating exchange and communication between battery researchers from Korea and Canada. The morning session featured introductions to battery research by institutions such as the Korea Institute of Energy Research (KIER), Canada's National Research Council (NRC), Korea Institute of Geoscience and Mineral Resources (KIGAM), Korea Institute of Machinery and Materials (KIMM), and Alberta Innovates. The afternoon session discussed the upstream, midstream, and downstream segments of the battery value chain. Presentations were made by the Geological Survey of Canada, NRC, Alberta Innovates, and MakeSens in Canada, and by KIGAM, KIMM, KIER, Korea Aerospace Research Institute (KARI), and Korea Institute of Industrial Technology (KITECH) in Korea, covering topics such as mining, recycling, battery materials, safety, design, manufacturing, and future battery technologies.



KITECH-AKCSE International Joint Research Proposal Presentation



KITECH and nine members of AKCSE organized a research presentation event to match and advance collaboration between researchers on next-generation technologies. At this event, research findings were presented on the ongoing joint research into next-generation all-solid-state dry battery processes. Additionally, the latest research results were shared on artificial intelligence technologies, applications of 3D printing and autonomous mobility



platforms, hydrogen electrolysis production, robotics, and laser-processed graphene, both in Korea and Canada. This event served as an important opportunity to showcase new research findings and discuss future directions for collaboration.

Forums, Workshops and Special Sessions

Sessions, and Forums for participants and delegates from Korea and Canada. This is one of the CKC's intrinsic functions. In particular, CKC 2024 was highly meaningful as a number of successful events hosted during the CKC 2024 shown below.

KOFST-Space R&D Session

This special session served as a forum to introduce and advocate for the recently formed Korea Aerospace Administration (KASA), fostering a platform for dialogue on enhancing collaboration between Korea and Canada; and facilitate discussions to explore strategies for promoting collaboration and cooperation. We recognized the extensive scope of space-related research, which spans various fields from space health to space artificial intelligence. For this workshop, we concentrated on four key areas: space defense, space utilization, space exploration, and applications. Each area covers a wide range of research themes, with numerous projects reflecting significant accomplishments in both Korea and Canada. We invited three distinguished speakers, each specializing in one of these four research domains. Their presentations highlighted key research themes and provided valuable insights into the advancements and innovations that are shaping the future of space exploration and utilization.



KERI R&D Session

KERI R&D session is jointly held by KERI and AKCSE to present the researches by KERI-Waterloo AI Research Hub and the preliminary results of the research projects conducted by AKCSE. In the first part, researchers from KERI and University of Waterloo presented AI-related manufacturing, and in the second part, midterm report and the preliminary activities of the AKCSE-KERI project were presented by 2 AKCSE members. Additionally, future plans for collaboration between KERI and AKCSE have also been discussed.



[KICT Forum] AI-based innovative solutions for climate change and future society

This session has time to introduce the achievements of AI-centered research that is applied in various fields of construction and environment. In this session, Tae J. Kwon and the University of Alberta presented AI technologies that are applied in various ways to severe weather in Canada, and contents such as flood control and AI applied to road infrastructure for driverless vehicles were announced, and various discussions were actively conducted.



KIMM-AKCE Joint Session

The Korea Institute of Machinery and Materials (KIMM) and the Association of Korean-Canadian Scientists and Engineers (AKCE) conducted presentations on their joint research results. A total of four projects were each presented for 20 minutes, followed by a Q&A session. KIMM will select next year's main project through internal discussions.



KRICT-Canada Data-Driven Materials Design Session

The session discussed DX platform, AI guided material design, automated drive under the theme of Data-Driven Material design. Research teams from KRICT, NRC (Canada) and University of Toronto present contemporary research outcomes in the subject of matter. KRICT presents 'DX technology for plastic compounds', 'Web-based Research Platform for Experimental and Calculation data: ChemDX and MatDX', 'Beyond the computational predictions from learning structure -synthesis relations'. University of Toronto side discusses 'Orchestration for self-driving laboratories'. Materials discovery using AI: solid-state electrolytes and high entropy alloys has been presented by the team from NRC. Throughout the session, a collaborative research proposals have been discussed in the areas pertaining to AI applications and computational science.



Marine S&T Cooperation Session

The Blue Carbon Research Center (BCRC) held a special session on marine S&T cooperation for carbon neutrality to showcase the state of R&D on blue carbon and to present the center's science and technology strategy to make the blue carbon recognized as an official carbon sink by the United Nations Intergovernmental Panel on Climate Change (IPCC).



KIMS R&D Session

The KIMS R&D session is to promote participation of Korean-Canadian scientists and engineers in the planning of collaborating R&D projects with researchers at KIMS for expanding global cooperation. Especially, participants shared their R&D progress and discuss technical findings. 6 projects from the AKCE members/KIMS were selected and granted by KIMS. Three technical presentations (layered polymer composite with graded cellular structures for EMI shielding/thick electrode design and dry processes for next-generation batteries/ high-temperature ceramic temperature sensor through ceramic dielectric 3D printing) from KIMS were presented. Three research works (development of solid electrolyte separator /effective design of thin EMI shielding materials using conductive polymer composites and foams/permittivity simulation and optimal 3D structure design) were presented by the AKCE members. Presenters and the session participants shared and discussed about research findings and discussed about their plans of the projects including activities of CKC2025. Especially, the KIMS updated the international collaboration between KIMS and AKCE members. It is expected that next KIMS R&D session at CKC2025 provides the AKCE members to share and discuss their results of the projects and opportunity to open more collaboration with KIMS for the members. In addition, Dr. Dongyi Seo, the ambassador of KIMS, received the acknowledgement plaque due to his significant contribution in establishing a foundation of international collaboration between two organizations.



KIER, KIMM Ammonia-Hydrogen Session

In this session, key researchers from prominent institutions in Korea and Canada (KIER, KIMM, NRC, University of British Columbia) presented cutting-edge research on hydrogen and ammonia-related topics. The presentations covered diverse areas including the cost-effective production and eco-friendly applications of ammonia, solid oxide fuel cells utilizing ammonia, synthesis of nanoparticles using high entropy alloys (HEA), computational methods for rapid screening of HEA catalysts, and the use of eggshell-structured catalysts for ammonia decomposition. The session facilitated an exchange of development achievements and fostered an open discussion among academia and government-funded researchers from both countries. Participants explored current technological advancements, identified opportunities for collaborative research, and discussed potential cooperation initiatives.



NST recruitment & information session

The National Research Council of Science and Technology (NST) held a recruitment and information session for young generation and young professional participants of the conference. Six Korean government-funded research institutes presented at the session: Korea Institute of Industrial Technology (KITECH), Electronics and Telecommunications Research Institute (ETRI), Korea Institute of Geoscience and Mineral Resources (KIGAM), Korea Research Institute of Chemical Technology (KRICT), Korea Atomic Energy Research Institute (KAERI), and Korea Institute of Materials Science (KIMS). Each institution promoted the benefits of researching in Korea by showcasing its history, achievements, and working environments, then announced career opportunities, such as internships, postdoctoral fellowship, and research positions.



NIMS R&D Session

Based on the agreement between NIMS and the University of Calgary (Sep. 2022), the two institutions have established and are operating a microgravity observatory at Yemi Lab of the Institute for Basic Science in Yemiri, Jeongseon, Gangwon Province, South Korea. This observatory, currently located at a depth of 1008 meters underground and 125 meters below sea level, is equipped with a superconducting gravimeter that observes tiny gravitational changes on the Earth. The project, called GICK (micro-Gravity Investigation in Canada-Korea), aims to detect gravitational changes that occur before the arrival of P-waves during an earthquake and to prove the existence of dark matter by detecting subtle gravitational changes that might be caused by dark matter around the Earth and the solar system.

In this session, the current status and operational achievements of the microgravity observatory were introduced and shared. Discussions were held on the future operation plans of the observatory, as well as the promotion plans of ENIGMA (East-Asian Network Initiative for Gravity Measurement Alliance), an international joint cooperation project for the successful execution of this project. Additionally, the session included discussions on the results of a paper on induced earthquakes from ongoing research and continued with discussions on potential partnerships for ongoing research and collaboration.



Technical Field Trip

- The Canadian Rocky Mountains
- Lake Louise
- Moraine Lake



EQUITY, DIVERSITY AND INCLUSION (EDI):

Embracing more fully ideas of inclusiveness and diversity among the AKCSE members, process related to equity, diversity and inclusion (EDI) focused objectives. women participate fully in Canada's technology and engineering workforce. every accounting for nearly 35%. Although we have seen a year-on-year increase in the number in the arena of S&T innovation. The efforts by the AKCSE to deal with the EDI concept to AKCSE co-organized programs with Korea's two leading organizations of women scientists

KOFWST (KOREA FEDERATION OF WOMEN'S SCIENCE & TECHNOLOGY ASSOCIATIONS)

This session aimed to foster a collaborative approach to achieving gender equity in STEM at the individual, team, research content, and institutional levels in Canada and Korea. We discussed innovative strategies to empower women researchers and academics to excel as leaders, driving scientific and technological advancements worldwide. The discussion featured valuable input from both female and male participants, creating an inclusive environment for all stakeholders committed to this ongoing effort. The session kicked off with inspiring opening remarks from Dr. Kwon, President of KOFWST, and Dr. Krishnan, VP of Life Sciences at NRC. Esteemed experts from Canada and Korea, including two Canadian speakers specializing in gender equity in STEM and the health sector, Dr. Lee, President of GISTeR, and a male scientist from Canada, shared their insights on strategies for achieving gender equity in STEM.



WOMEN IN SCIENCE AND ENGINEERING AT CKC 2024

we try to build respect into all its relationships through a dialogue and understanding To help achieve gender balance in the AKCSE, we seek to address various issues – ensuring As a result, the participation of woman scientists and engineers has been increasing of women working in science and technology (S&T) areas, they are still under-represented the organizational principle resulted in several events planned and organized at CKC2024. and engineers and one center for gendered innovations (i.e., KOFWST and KWSE).

KWSE (THE ASSOCIATION OF KOREA WOMAN SCIENTISTS & ENGINEERS)

In this session, we delved into the research and development (R&D) landscape in Canada and Korea, focusing on a sustainable future. We unveiled groundbreaking research findings on Healthy & Smart Cities and hydrogen energy technology. The session kicked off with an inspiring opening remark from Dr. Rhim, the President of KWSE, and featured five dynamic speakers from both countries discussing the theme 'Achieving Sustainability for a Better Future.'



BRIDGING KOREAN GOVERNMENT FUNDING AGENCIES

The AKCSE and its annual CKC offers unique and exclusive opportunities for both the Korean foster innovative STI research collaborations. In 2024, Institute of Information & Industrial Technology (KEIT), and Korea Institute of Marine Science Technology

R&D Funding Agency Session with IITP

R&D Funding Agency Session with IITP: In order to strengthen and expand cooperation between IITP and the Association of Korean Canadian Scientists and Engineers, a total of 12 participants attended a presentation on 1) the status of major funding agencies in Canada, 2) the status of major research institutions in Canada, and 3) the status of the National Research Council, followed by a discussion with leading Korean Canadian researchers to discuss ways to strengthen and expand cooperation between Korea and Canada



KIMST R&D Cooperation Session

The Korea Institute of Marine Science & Technology Promotion (KIMST) held a R&D cooperation session to introduce diverse R&D programs of KIMST and to promote participation of Korean-Canadian scientists and engineers in R&D cooperation projects in the field of ocean science and technology planned and managed by KIMST under the Ministry of Oceans and Fisheries Korea (MOF). In the session, a delegate from KIMST delivered a presentation on the R&D strategy of the MOF and discussed with the researcher about the planning of research topics selected through 2024 KIMST technology demand survey.



AND KOREAN-CANADIAN SCIENTISTS AND ENGINEERS

Government Funding Agency and Korean-Canadian Scientists and Engineers to promote and Communications Technology Planning & Evaluation (IITP), Planning & Evaluation Institute of Promotion(KIMST). joined the CKC to organize their institutional events with AKCSE.

KEIT Global Technology Strategy Forum



At the Global Technology Strategy Forum hosted by the Korea Evaluation Institute of Industrial Technology (KEIT), the Canadian funding organization MITACS attended and introduced examples of international cooperation projects. Additionally, KEIT presented its international collaboration strategies, and Project Directors in the fields of metals, smart manufacturing, textiles, and chemical processes introduced international collaboration projects and encouraged active participation from foreign institutions.



KEIT-AKCSE R&D Collaboration Meeting

During the joint research meeting between KEIT and AKCSE, four sections (metals, smart manufacturing, textiles, and chemical processes) were organized, and discussions were held for each section. With the participation of program directors from each section, in-depth discussions were conducted regarding the future demand survey directions involving Korean-Canadian scientists and engineers.



YOUNG GENERATION (YG) AND YOUNG PROFESSIONAL (YP)

The Young Generation (YG) and Young Professional (YP) Conference is an international professionals, and leaders across Canada and Korea and provide an important platform for the most important session of the CKC as these young scientists and engineers are the bright

YGR/YPF ALUMNI WORKSHOP



The YGF/YPF Alumni Workshop served as an opportunity for YGP Participants who attended YGF/YPF to come together and share their experiences with representatives from KOFST, fellow YGF/YPF Alumni, and YGP Participants with no prior experience with the forums. The participants eagerly shared their insights and engaged in productive

discussions on creating more educationally enriching opportunities for young Korean Canadian scientists and engineers in STEM.



YGP PROJECT SHOWCASE

The YGP Project Showcase presents a two-fold goal of providing career development opportunities for presenters and discussing novel research catered towards a generalized audience. As such, seven speakers were selected to give a 10-minute presentation on a summary of the project, discuss significance of their work, and share their progress on career development. A five-minute question and answer period was held after.



CONFERENCE

conference held annually at the CKC, to bring together student researchers, young industry them to build network, share knowledge and develop leadership. The YG and YP Conference is future of the AKCSE.

YGP NETWORKING SESSION / YGP ANNUAL GENERAL MEETING

The YGP Networking Session / Annual General Meeting was split into two main parts. The AGM portion consisted of a summary of YGPN activities over the previous year. With insights given into the budget, programs, and initiatives that were completed during 2023 and planned for 2024. These programs included but were not limited to, the YGP mentorship program, YG/YP Collaborative Event Fund and AKCSE Marble (A networking event targeted at bringing YG Chapters together.



Following the AGM, a networking session was given where 46 YGP Participants attending CKC 2024 were given a chance to meet and interact with one another prior to the start of the formal CKC program. This set out to develop a bond between YGP Participants encouraging continued collaboration and support between them continuing beyond the boundaries of CKC.



This year, in its third iteration, the Project Showcase ran very successfully. Before the conference, presenters were selected from a highly-competitive process of abstract submissions. Presenters were then briefed about expectations, regulations, and presentation content. There was continuous one-on-one mentoring of presentation drafts to ensure program quality. During the conference, every aspect of the program went well-rehearsed. Indeed, the absence of delays resulted in the program ending on-time, which is an improvement from previous years. As a result, we have received positive feedback.



YGP SKILLSHARE WORKSHOP

The Skill Share Workshop (SSW) is a session specifically structured for YGP participants to share and gain insights into a variety of soft skills that are typically gained through first-hand exposure and personal experience in academia and/or industry.

Now in its third iteration, this year's SSW featured a variety of engaging and insightful 10-minute presentations with themes such as: building personalized guidelines to enhance self-motivation; communicating more effectively with audiences through presentations; and fostering cultural sensitivity and diversity in research designs and process. Each presentation was followed by interactive 15-minute workshop activities, allowing the audience to reflect on and apply what they have learned from the presentations.

The SSW presents a great opportunity for YGP participants to get together, learn from one another's experiences and perspectives, and collaborate. We aim to incorporate participant feedback to improve the session and its delivery.



YGP LEADERSHIP WORKSHOP

The Leadership Workshop was a session that was conducted to help the transition of the leadership role in each chapter and to deliver information related to essential leadership skills. The Leadership Workshop this year was focused on small-group-based discussion to keep the session more interactive and interesting.

During the session, chapter representatives had a short time to introduce their chapter's identity, and explain how their chapter's identity was formed. They also shared a couple of events that they held last year to share with other chapter representatives. After that, chapter representatives were divided into small groups. Interesting scenarios were created based on the pre-workshop survey and given to them. Great discussions were initiated and continued during the workshop.

After the discussion, an Interactive presentation about essential leadership skills for leading chapters was presented by the YGPN executive team. Helpful tips for leading chapters were delivered to chapter representatives. At the end, a Q&A session with Dr. Seonghwan Kim was held to provide them with opportunities to ask any questions or suggestions for their successful term.



Award and Scholarship Ceremony

AKCSE scholarship committee and CKC award committee hold Award and Scholarship ceremony at each CKC. This year, the ceremony was held during the formal Banquet. This year, in particular, a number of awards and scholarships were given to Excellent Young Professionals and Young Generations.

CKC 2024 Award List

- Commendation from the Minister of Science and ICT (MSIT), Korea
- KOFST Scientist of the Year Award
- KOFST Engineer of the Year Award
- 2024 AKCSE Best Service Award
- 2024 AKCSE Early Achievement Award
- 2024 AKCSE WiSE Award
- 2024 AKCSE Best Young Professional Member Award
- 2024 AKCSE Best Student Member Award
- 2024 AKCSE Best Chapter Award
- 2024 AKCSE Best Young Professional Chapter Award
- 2024 AKCSE Best Young Generation Chapter Award
- 2024 AKCSE Best CKC Volunteer Award
- 2024 AKCSE Canada-Korea Collaboration Award

CKC 2024 Scholarship List

- SK Scholarship in Life Sciences
- Goryeo Medical Foundation Scholarship in Life Sciences
- Green Cross Scholarship
- CS WIND Scholarship
- KOGAS Canada Energy Ltd. Scholarship
- Hana Bank Canada Scholarship
- Lee Kyungsukun Scholarship
- KONA Scholarship
- KCSSF Scholarship



Organizers of CKC 2024

Organizing Committee

Conference Co-Chair: AKCSE President



Seonghwan Kim
University of Calgary
president@akcse.org

Conference Co-Chair: KOFST President



Tai Sik Lee
KOFST
taisik.lee@kofst.or.kr

AKCSE Vice President

Gov. Affairs & Public Relations



Keun Su Kim
National Research Council Canada
vice.president@akcse.org

Next Generation & E.D.I.



Regina Lee
York University
reginal@yorku.ca

Funding & Finance



Hyo-Jick Choi
University of Alberta
treasurer@akcse.org



Yong Hoon Kim
University of Windsor
kim523@uwindsor.ca

Local Committee

Southern Alberta Chapter

Chair



Keekyoung Kim
University of Calgary
keekyoung.kim@ucalgary.ca

Finance



Jongbok Lee
University of Calgary
jongbok.lee@ucalgary.ca

General Affairs

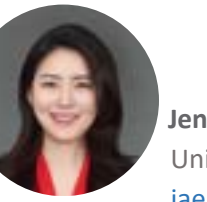


Jihyun Lee
University of Calgary
jihyun.lee@ucalgary.ca



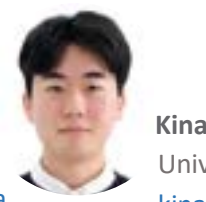
Kangsoo Kim
University of Calgary
kangsoo.kim@ucalgary.ca

Registration

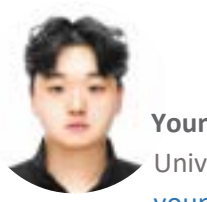


Jenny Shin
University of Calgary
jaemyung.shin@ucalgary.ca

Volunteer



Kinam Hyun
University of Calgary
kinam.hyun@ucalgary.ca



Youngbin Kim
University of Calgary
youngbin.kim1@ucalgary.ca

CKC Operations



Jeong-Ae An
AKCSE Administrative Manager
Info@akcse.org



Aram Cho
AKCSE Executive Assistant
ckc@akcse.org

YGPN Program Organizing Committee

Chair / YGPN President



Johnny Lee
University of Alberta
johnnylee180@gmail.com

Vice Chair / YGPN Vice President

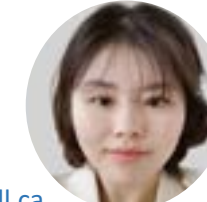


Mina Lee
University of British Columbia
dlask0324@gmail.com

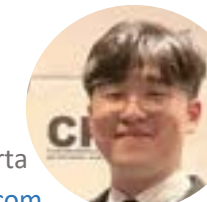
CKC YGP Program Lead



Hannah Cho
McGill University
hannah.cho2@mail.mcgill.ca



Jane Lee
University of Alberta
janeljh17@gmail.com



Yongjoo Han
IWK Health Centre
yn585974@dal.ca

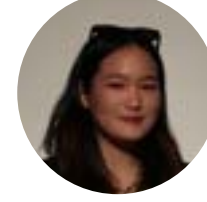
YGP Events & Initiatives



Jisoo Kang
TC Energy
jisookang95@gmail.com



SunMin Park
Health Canada
spark2@mta.ca

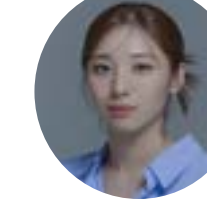


Yeonjae Oh
Queen's University
rose.oh@queensu.ca

YGP Communications & Outreach



Jonathan Kim
Western university
jonathankim.work@gmail.com



Seunghee Lee
CIBC
shmg0204@gmail.com

See You All Again Next Year in Montreal at the CKC 2025

2025 in Le Centre Sheraton Montréal, July 28-August 1, 2025



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September 1-4, Online in Korea & In-person, Halifax, Nova Scotia



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"Accelerate Transition to a Sustainable Future"
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July 4-8, Niagara Falls Marriott on the Falls, Niagara Falls, Ontario



2024 Canada-Korea Conference on Science and Technology
"Accelerate international collaboration by unlocking the power of science and technology"
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THANK YOU FOR YOUR SUPPORT & PARTICIPATION!



CKC 2025 – MONTREAL, QUEBEC



Modified from: Loïc Romer - Tourisme Montréal



July 28 (Mon) – August 1 (Fri), 2025

E-mail: ckc@akcse.org, info@akcse.org

Homepage: akcse.ca/CKC2025

Date: July 28 (Mon) – August 1 (Fri), 2025

Venue: Le Centre Sheraton Montréal, Montreal, Quebec, Canada

Main Program (Tentative):

- Day 1 (7/28, Mon) Registration, Welcome Reception
- Day 2 (7/29, Tue) Opening Ceremony, Plenary Session I, ST&I Forum, Technical Sessions
- Day 3 (7/30, Wed) Plenary Session II, KGRI and Funding Agency Sessions
- Day 4 (7/31, Thu) Research Showcase, Farewell Dinner and Award Ceremony
- Day 5 (8/1, Fri) Off-site Technical Program



CKC 2024 SUMMARY REPORT

AUGUST 2024

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Address: 1133 Leslie Street, Suite #206, North York, ON M3C 2J6, Canada

Phone: +1(416) 449-5204, Email: ckc@akcse.org; info@akcse.org

CKC 2024 website: <https://www.akcse.ca/ckc2024>