

RESEARCH HIGHLIGHT

Research Center Project Selected

Launching the C2 GRID HUB

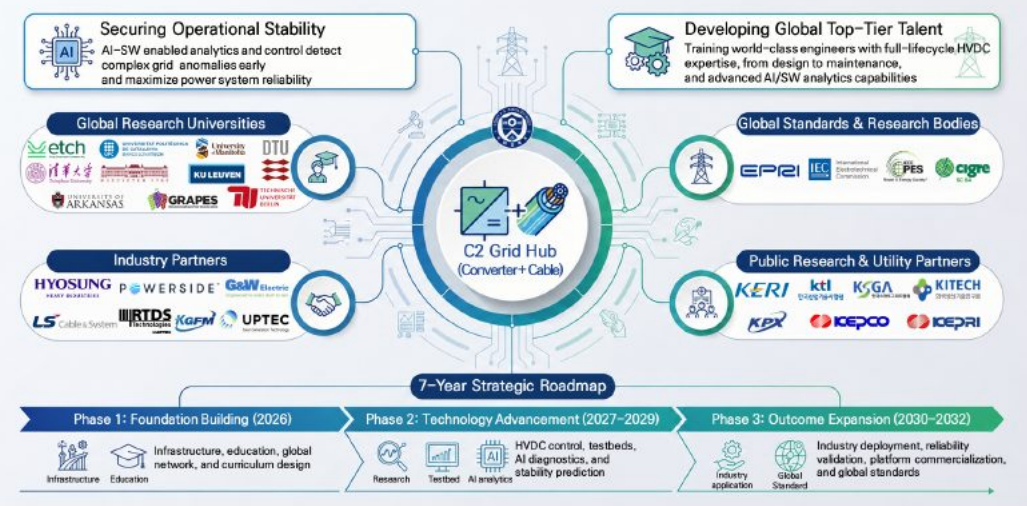
The project establishing our AI-SW HVDC Integrated Power System Innovation Research Center has been selected. The center aims to build AI-SW-based modeling, control, and analysis capabilities for MT-HVDC integrated power systems, while developing an industry-academia-research training ecosystem. We will grow the center as a national hub for predicting, controlling, and validating converter-cable interactions in the emerging C2 Grid. We sincerely thank all participating institutions, partner organizations, and colleagues who provided generous advice and support throughout the consortium-building process. Over the coming year, this newsletter will regularly share the center's research outcomes and progress, and we look forward to continued interest and collaboration with our partner institutions.

Development of AI-SW-Based Core C2 Grid Technologies

Converter-Cable-Linked Integrated MT-HVDC Power System



C2 Grid Hub: Global Innovation Network for the Future Energy Superhighway



EVENTS WITH COLLABORATORS

Seminars, visits, and research updates

The center is expanding its C2 Grid and HVDC integrated power system research network through seminars, industry visits, and research outcome sharing with domestic and international collaborators.



HVDC Tutorial with KU Leuven & EnergyVille ETECH

On April 8-9, the center hosted a two-day HVDC tutorial with Professors Dirk Van Hertem and Hakan Ergun, covering HVDC technologies, converter topologies, operational reliability, planning, and cost-benefit analysis.



National Power Grid Future Strategy Forum

On April 9, consortium members Prof. Dirk Van Hertem and Prof. Hakan Ergun of KU Leuven, together with Prof. Kyeon Hur, participated in the National Power Grid Future Strategy policy forum at the National Assembly. The forum discussed HVDC as a key solution for grid constraints in the energy transition.

[Article](#)



Online Seminar on Data-Driven Security and Stability Rules

On April 23, the center hosted an online seminar on Data-Driven Security and Stability Rule for Power System Operation and Planning, sharing recent work on security and stability rule embedding for operation and planning optimization.



Invited Seminar at the University of South Carolina

On May 11, Professor Yong-June Shin visited the University of South Carolina and delivered an invited seminar on diagnostics and prognostics of electric power cables, with TFRD-based HVDC cable diagnostic case studies.



Partner Company Visit for Industry-Academia Collaboration

Researchers from Yonsei University visited Hyosung to tour power facility infrastructure and discuss collaborative research directions related to HVDC, power conversion, and cable diagnostics.

Host Institution Research Paper Published

A paper led by the host institution, "Structure-inspired Parameter Estimation of Composite Load Model with Distributed Generation via Interdependency-based Parameter Grouping," has been published in Journal of Modern Power Systems and Clean Energy. The corresponding author is Prof. Kyeon Hur of Yonsei University. Date of publication: 27 April 2026. DOI: 10.35833/MPCE.2025.000644.

[DOI](#)

UPCOMING

MAY

27

Invited Seminar by Prof. Alan Mantooth

Yonsei University ER Park 173

Topic: Next Generation Power Delivery Through Power Electronics. Date & time: Wednesday, May 27, 2026, 2:00 PM. Venue: Engineering Research Park Seminar Room 173, Yonsei University. Hybrid format. Meeting ID: 812 6510 2754 / Password: 111321.



[Zoom link](#)

JUL

05-09

ICEE 2026

Seoul, Korea

ICEE 2026 will be held in Seoul on July 5-9, 2026. Yonsei University will present DC-related research, and UPTEC will organize a tutorial session titled "Understanding HVDC Systems and MMC-Based Converters."

[Website](#)

JUL

19-23

2026 IEEE PES GM

Montréal, Canada

The 2026 IEEE PES General Meeting will be held in Montréal on July 19-23, 2026. Members from Yonsei University, Hyosung, UPTEC, and KGFM are scheduled to present their research outcomes.



[Website](#)