



Vision for Global Cooperation - Team Korea -

2025 October

Yongsoo HWANG, Ph D

Distinguished Professor

KEPCO International Nuclear Graduate School



INC

International Nuclear Nonproliferation
Cooperation Center

KEPCO International Nuclear Graduate School

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MISSION POSSIBLE

Meeting of Two Visionaries at the Blue House (July. 1956)

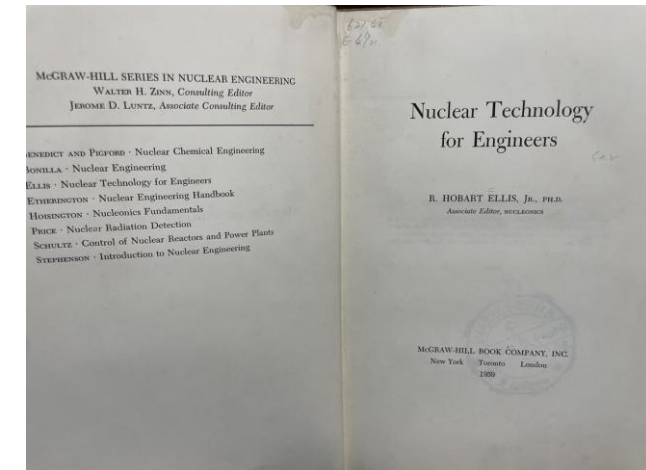


Walker Lee Cisler



1st President Syngman Rhee

*"Coal is mined in the land, but nuclear energy is mined in the brain.
Countries like Korea that are poor in natural resources should
proactively develop nuclear energy."*



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School History

▶ 2025 ~ 2024

- Signed MOU with IAEA for internship cooperation
- Signed MOU with Czech CENEN and ANV for collaborative HR development
- Co-hosted 2nd Korea-Visegrad Nuclear HR Forum
- Launched the International Nuclear Power Cooperation Center (KINGS-Brno University of Technology)

▶ 2023 ~ 2012

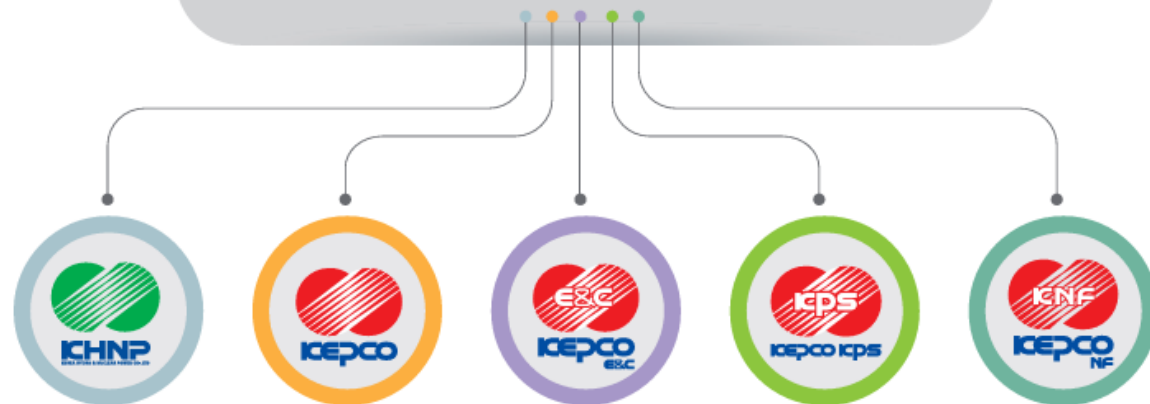
- Doctoral program officially approved
- Achieved IAEA INMA certification; designated as IAEA-KINGS Decommissioning Research Center
- Hosted 1st Korea-Visegrad Nuclear HR Training Forum
- Maintained status as an Excellent Internationalized University (The Korean Ministry of Education)
- Joined ENEN (European Nuclear Education Network)
- Established of the Department of Energy Policy and Engineering
- Designated as a public institution under MOTIE (Ministry of Trade, Industry and Energy)
- First entrance ceremony in 2012 and their graduation in 2013

▶ 2011 ~ 2009

- Received accreditation from the Korean Ministry of Education campus construction completed
- KINGS campus groundbreaking ceremony

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KEPCO Group Companies



Financial Information

▶ Tuition

48.4 million KRW per academic year. Includes lectures, course materials, and facility access.

▶ Matriculation Fee

1 million KRW (one-time).

▶ Living Costs

12.8 million KRW per year (includes dormitory and three meals a day).

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Faculty

Department of Nuclear Power Plant Engineering (Full Time Faculty)

Name	Title	Major Field	Education & Professional Experience
Lim Hak-kyu	Professor (Dean of Academic Affairs)	Probabilistic Safety Assessment	<ul style="list-style-type: none"> Ph.D., Mechanical Eng., UCLA. M.S., Mechanical Eng., Seoul National Univ. Senior Researcher and Manager of PRA team, KEPCO-E&C
Hah Chang Joo	Professor	Nuclear Fuel Design	<ul style="list-style-type: none"> Ph.D., Nuclear Eng., Purdue Univ. M.S., Nuclear Eng., KAIST. Adjunct Professor, Univ. of Battambang, Cambodia
Hwang Yong-soo	Distinguished Professor	<ul style="list-style-type: none"> Nuclear Fuel Cycle and Spent Nuclear Fuel Management Nuclear Export and Control Nuclear Nonproliferation and Security 	<ul style="list-style-type: none"> Ph.D., Nuclear Eng., UC Berkeley M.S., Nuclear Eng., UC Berkeley Senior Vice President, KAERI President, KINAC Founding Member, Asia Pacific Leadership Network
Jung Wooyong	Associate Professor (Executive Director of Administration)	Project Management	<ul style="list-style-type: none"> Ph.D., Construction Project Management, Yonsei Univ. M.S., Structural Eng., Korea Univ. Team Leader, Enterprise Risk Management, SK E&C. Senior Researcher, KICT
Kim Bum-nyun	Visiting Professor	NPP Operation and Management	<ul style="list-style-type: none"> Ph.D., Mechanical Eng., Chungnam National Univ. M.S., Mechanical Eng., Chungnam National Univ. CEO, KEPCO-KPS Deputy EVP and CNO, KHNP
Kim Juyoul	Professor	Radiation Safety and Environmental Protection	<ul style="list-style-type: none"> Ph.D., Nuclear Eng., Seoul National Univ. M.S., Nuclear Eng., Seoul National Univ. Director, Radiation Environment, FNC Technology Co., Ltd.
Kim Keung-koo	Distinguished Professor	Small Modular Reactor	<ul style="list-style-type: none"> Ph.D., Nuclear Eng., M.I.T. M.S., Nuclear Eng., Seoul National Univ. Vice President for SMART Development, KAERI
Kang Ki-sig	Visiting Professor	Energy Business Environment	<ul style="list-style-type: none"> Ph.D., Nuclear Eng., KAIST M.S., Nuclear Eng., KAIST Tech. Head, IAEA
Kim Yong-deog	Associate Professor (Head of R&D Foundation)	Spent Fuel Management	<ul style="list-style-type: none"> Ph.D., Nuclear Eng., UC Berkeley. M.S., Materials Science & Eng., Hanyang Univ. Director, KHNP Central Research Institute
Yee Eric	Associate Professor	Civil Engineering Protection	<ul style="list-style-type: none"> Ph.D., Civil Eng., Univ. of California, Los Angeles. M.S., Civil Eng., California State Univ., Los Angeles. Postdoctoral Researcher, Hanyang Univ.
Yoon Han-young	Associate Professor	Nuclear Thermal Hydraulics	<ul style="list-style-type: none"> Ph.D., Nuclear Eng., Univ. of Tokyo. M.S., Nuclear Eng., KAIST. Principal Researcher, Korea Atomic Energy Research Institute
Yoon Joo-il	Assistant Professor (Head of Nuclear Power Plant Engineering)	NPP Design	<ul style="list-style-type: none"> Ph.D., Nuclear Eng., Seoul National Univ. M.S., Nuclear Eng., Seoul National Univ. Head of Nuclear Core Technology Department, KEPCO NF Co., Ltd.

Faculty

Department of Nuclear Power Plant Engineering (Emeritus Faculty)

Name	Title	Academic Credentials
Chang Choong-koo	Professor Emeritus	• Ph.D., Electrical Eng., Myongji Univ.
Han Ki-in	Professor Emeritus	• Ph.D., Nuclear Eng., Univ. of Florida
Jung Jae-cheon	Professor Emeritus	• Ph.D., Nuclear and Quantum Eng., KAIST
Kim Chang-lak	Professor Emeritus	• Ph.D., Nuclear Eng., UC Berkeley
Kim Tae-ryong	Professor Emeritus	• Ph.D., Mechanical Eng., Univ. of Wisconsin
Oh Seung-jong	Professor Emeritus	• Ph.D., Nuclear Eng., UC Berkeley
Roh Myung-sub	Professor Emeritus	• Ph.D., Nuclear Eng., KAIST

Department of Energy Policy and Engineering (Full Time Faculty)

Name	Title	Major Field	Education & Professional Experience
Cho Kang-wook	Associate Professor (Head of Energy Policy & Engineering)	Power and Energy Systems	<ul style="list-style-type: none"> Ph.D., Energy Economics, Soongsil Univ. M.S., Electrical Eng., Seoul National Univ. Senior Vice President, Division of Market & System Development, Korea Power Exchange.
Park Soo-jin	Associate Professor (Executive Director of Planning and External Affairs)	Finance	<ul style="list-style-type: none"> Ph.D., Development Policy, KDI School of Public Policy and Management M.S., Baker Program, Cornell Univ. Head of Public Investment Policy Team, PIMAC(Public and Private Infrastructure Investment Management Center) of KDI

Department of Energy Policy and Engineering (Part Time Faculty)

Name	Title	Academic Credentials
Kim Young-jin	Adjunct Professor	• Ph.D., Electrical Eng. and Computer Science, MIT
Park Jeong-soon	Professor for Special Affairs	• Ph.D., Economics, Oklahoma State Univ.
Park Joshua K.	Adjunct Professor	• Ph.D., Law (Juris Doctor), Harvard Univ.

Department of Energy Policy and Engineering (Emeritus Faculty)

Name	Title	Academic Credentials
Yoon Yong-beum	Professor Emeritus	• Ph.D., Electrical Eng., Seoul National Univ.

Research Centers



International Nuclear Collaboration Center (I-NCC)

- Nuclear education and training platform for academia and industry
- Tacit knowledge transfer program for nuclear youth
- Students co-supervisor program by conducting joint R&D projects
- Supporting the capacity building program for employees of nuclear industries
- Training the trainers and leadership program for managerial level staff



International Nuclear Nonproliferation and Cooperation Center

Promote U.S.-Korea cooperation through nonproliferation efforts, training programs, and frameworks with key nuclear export regions. Establish joint consultative bodies and action plans to enhance nuclear security and international collaboration.



Nuclear D&D and Radwaste Research Center

Specialized research center in nuclear decommissioning and radioactive waste, fostering professional talent and conducting research by securing projects from nuclear-related institutions.



Energy Technology and Policy Research Institute (ETPRI)

Regularly monitor and analyze domestic and international energy policies, build models and databases to support actionable policymaking, and develop policies through issue analysis in energy-related fields.



KINGS Students
2012-2025

From 35 Countries for MS and Ph D Studies



Europe

	Alumni	Enrolled Students
Poland	10	16
Czech Republic	3	2
Romania	4	0
Turkey	6	1
Belarus	1	0
Slovakia	1	0
Total	25	19

Middle East

	Alumni	Enrolled Students
Egypt	21	3
UAE	6	0
Jordan	4	1
Yemen	5	0
Total	36	4

Total

	Alumni	Enrolled Students	Total
Korean	319	67	386
International	288	56	344
Total	607	123	730

Asia

	Alumni	Enrolled Students
Korea	319	67
Vietnam	27	1
Malaysia	17	0
Indonesia	22	6
Uzbekistan	2	4
Kazakhstan	1	1
Bangladesh	7	0
Thailand	3	2
Philippines	3	2
Mongolia	8	0
Cambodia	1	0
Tajikistan	1	0
Pakistan	1	0
Myanmar	0	2
Total	412	87

America

	Alumni	Enrolled Students
Brazil	5	0
Mexico	1	0
Total	6	0

Africa

	Alumni	Enrolled Students
Kenya	52	2
South Africa	20	4
Nigeria	27	1
Ghana	10	0
Tanzania	7	1
Uganda	9	3
Tunisia	1	0
Senegal	1	0
Rwanda	1	2
Total	128	13

Educational Balance

- Nuclear Technologies
 - Traditional Reactor Technologies
 - SMR & APR1400 Specific Technologies
 - Nuclear Fuel Cycle Technologies
 - Nuclear Nonproliferation & Security
 - Nuclear Export
- Nuclear Economics
- After Cares

Good Educational Environment

- Full Scholarship
 - MS 2 Year Courses
 - New Ph D Courses
- Free Dorm Services
- Research Assistanceship
- Close Contact with Colleagues from Korean Nuclear Industries

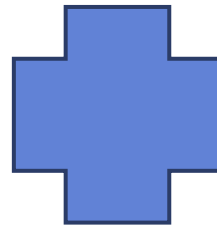
Team KINGS

- Nuclear Engineering Experts
- Nuclear Economics Experts
- Well Experienced Outside Experts on WEC 600 MWe and CANDU Reactors

Other Endeavors in South Korea

- SNU
- KAIST
- HANYANG UNIVERSITY
- KYUNGHEE UNIVERSITY
- UNIST
- POSTECH
- Chosun University
- Pusan National University
- Sejong University
- Chungang University
- Dankuk University
- Dongguk University

AX(AI Transformation) : Commerical + Defense



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POWER of On TIME & Within BUDGET

- Pragmatic Solution -

“모든 기준에서
한국이 제시한 조건이
우수했다”

페트로 피알라 총리



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Mighty EPCM with Doosan Enerbility Changwon



Casting & Forging Shop

Steelmaking & Foundry Shop

- < Steelmaking & Foundry Shop >
- Overall Size : 394m x 140.5m x 29m
- Area : 55,357m²
- Number of bays : 6

Forging Shop

- < Forging Shop >
- Overall Size : 492m x 160m x 25m
- Area : 78,720m²
- Number of bays : 6

Main Facilities

• Forging Press
(170MN or 17,000 tonnes)

• Heating Furnace
(Max. 450t, 6M (W) x 5M(H) x 18M(L))

• Heat Treatment Furnace
(Max. 300t, 11.2M (W) x 6.5M(H) x 20.2M(L))

Four Step Vision with World Bank

- Lifetime extension & Re-build of Existing Nuclear Installation
- Human Resources Cultivation
- Financial Measure Development
- New Builds

Current Network

- Carnegie Endowment for International Peace
- NTI/APLN
- Atlantic Council
- Openheimer/Rockefeller Foundations
- CRS
- ClearPath
- CSIS
- Third Way
- EPRF
- Pacific Forum/CSCAP
- RAND
- Sandia/CMC
- Texas A&M, GM, GW Universities
- VERITIC

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Seminars

- SMRs with Deep Boreholes/DIS
- CSCAP Nuclear Energy Meetings
- Collaboration with US on the US & Middle East Markets
- Export Control
- Seminar 1
- Seminar 2
- Trans Pacific Dialogue
- GW Univ Seminars
- US NIC, AC, and others

Nuclear Philanthropy



Ashvin Dayal
Senior Vice President Power
The Rockefeller Foundation



Karen Pak Oppenheimer
Co-Executive Director
The Oppenheimer Project



Same Vision for
PR-PP and PSI



Understanding
Needs of Partners



Identifying Proper
Mechanisms



Mutual Trust



Going Together: Participation

Thank you & Gamsahabnia



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