# Dr. Prof. Dong Hwa Kim

# Hanbat National Univ. S. Korea (Emeritus Prof.) DSTSC (Daeduck Science and Technology Cooperative), Executive

- Home page: www.worldhumancare.wixsite.com/kimsite
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- Research citations: https://www.researchgate.net/profile/Dong Kim53
- https://orcid.org/: 0000-0002-0528-6736

# Education

- Ph. D: Dept. of Computational Intelligence and Systems Science, Interdisciplinary Graduate School of Science and Engineering, TIT (Tokyo Institute of Technology), Tokyo, Japan, 2006. Degree subject: (Al Application: Genetic Algorithm Combined with Particle Swarm Optimization/Bacterial Foraging and Its Application to PID Controller Tuning)
- Ph. D course: Foreign affairs, Graduate School of Korea University, 2008-2012.
- Ph. D: Dept. of Electronics Eng., Ajou University, Korea (Robust state feedback controller design of multivariable turbo generator system), Feb. 22, 1991.
- Advanced Study: Program for International Cooperation, Hallym Institute of Advanced International Studies, 2006-2018
- MS: Dept. of Electrical Eng., Inha University, S. Korea, 1983.
- BS: Dept. of Electrical Eng., Myong Jin University (Electrical engineering): 1977-1978 (2-years)
- Daeieon technical college (Electrical Engineering): 1968-1972 (5 years, High school 3+College 2 system)

# **University Teaching and Research Experience**

- Al related Technology online lecture for master course, Kathmandu University of Nepal, 2021-2025, ongoing.
- Seoul National University of S&T, Researcher, 2021-2022
- Full professor, Adama Science and Technology University, Ethiopia, April 19, 2019-Feb. 2021.
- Full professor, Director, Korean Experts Center of TDT University, Vietnam (2015-2028)
- Dean, Graduate school of Huree University, Mongolia, 2015.
- Prof., Dept. of Control Eng., Hanbat National University, March 2, 1993-Feb. 2015
- Honorary Prof. Hanbat National University (Feb 28, 2015-)
- Associate fellow researcher, University Malaysia Sabah (Aug. 6, 2014 Aug. 5, 2016)
- Visiting Professor, Mechanical, Optic, Engineering Informatics, Budapest University of Technology and Economics, March 2012–Feb 2013.
- Header of Admission office, Hanbat National University, Aug.1, 2010-July. 28,2011.
- President, Korea Institute HuCARE (President of Hu-CARE (Human-Centered Advanced Technology

# Research/Education

- Al and Smart farm research (May 25-Dec 10, 2024), wha-Al, Korea
- Al and robot education executive (May 2023-April 2024), CN robot, Korea.
- Al consultant (Dec. 2022-May 2023), Smart bank (Al and Data company, S. Korea)
- Al consulting (2021-), Korean government supporting company.
- EU-FP7 (EU- Framework Program) NCP (ICT) in Korea, April 29, 2011-2015
- Director, KNRF (Korea National Research Foundation), 2006-2008.
- Visiting Prof., University of Alberta, Canada, March 1, 1999-March 1, 2000.
- Inviting researcher, ANL (Argonne National Lab.), USA, Aug. 1988-Dec. 1988.
- Inviting Researcher, AECL (Atomic Energy Canada Lab.), Canada, Nov. 1985-Nov.1986.
- Korea Atomic Energy Research Institute, Nov. 1977-March, 1993.
- Korea-Hungary Joint Work: Aug. 1, 2010-Feb. 28, 2011, 'EU project (Robot motion-related ETOCOM) consultation with research staff members and lectures.
- President, Daedeok Korea-India Forum, March 1, 2010–2015
- Vice President, Daedeok Korea-Japan Forum, March 1, 2010–2015
- Director of Science Culture Research Institute, Korea Science Foundation, Sept. 8, 2006 Jan. 31, 2008.
- Vice-president of the recognition board of the world congress of arts, sciences and communications, IBC, Sept. 1, 2007-2010, UK.

### International Keynote Speech

- ICRR2024, Dec. 4-7, Yokohama, Japan
- Robotmeet2021 (Sept 13, 2021, Portugal), ICW2020 (Nov. 25-27, 2020, Royal Ambarukmo, Yogyakarta, Indonesia), Skip (100 times lecture in the world)
- Editor IJCÍR (International Journal of Computational Intelligence), Skip.

# Research Activity (Research Book)

**Experience** 

#### Book Author

- Knowledge Representation, Al, and ChatGPT, Dec. 2024, Amazon (M0D2080454358).
- Al curriculum design (Korean Version), Dec. 2024, Amazon.
- How to Teach and Learn Al Outskirt press, USA, Aug 2022. ISBN-10: 1977254292
- Africa and 4th Wave (Will it risk or Chance?), Oct. 2020 (Amazon).,

	<ul> <li>4th wave Status and preparation of Visegrad Group Country, LAMBERT (Germany), ISBN-10: 6200241155</li> <li>Why does not the Korea produce Nobel award? 2019, BookLab (Korea), ISBN: 9791162995990</li> <li>Innovation tuning based on biotechnology (Dec. 2017, Pand Stanford publishing Co. (USA)</li> </ul>
Research Activity Text Book (Korean version)	<ul> <li>How to educate in famous university, July 2016.</li> <li>How we can survive? (2005), Naeha publisher</li> <li>Effective education strategy in Information era (2003), Hyubsoung</li> <li>Sensor engineering (2001.1), Taehoon publisher</li> <li>Intelligent automation (Sept 1998), Kidali publisher</li> <li>New Instrumentation (Ahu. 1997) Dong II publisher</li> <li>Sensor engineering (March 1996) University press</li> <li>Process control (March 1996) University press</li> <li>Others (Korean: Korea will not have Nobel award, Kore! How to survive? How to educate Industrial manpower?)</li> </ul>
Research Activity (Paper)	Research Paper (Dec 2021- )
	<ul> <li>Dong Hwa Kim, "Face to Face Lecture on knowledge development for a new AI, Kathmandu University master course, Feb May (3-Month), 2025.</li> <li>Dong Hwa Kim, "Online lecture on AI Application, 2022-2024, Kathmandu University, Master course, Nepal.</li> <li>Dong Hwa Kim, "A studying on the possibility of ChatGPT application for optimal coffee bean roast process development to focus on the best customer flavor, "IARJSET, Vol. 12, No. 3, pp. 1-33, ISSN (0) 2393-8021, 2025.</li> </ul>
	<ul> <li>Dong Hwa Kim, Seung Min Bak, "How to Prepare Agriculture Operations under the Impact of LLM Technology (Focusing on the Perilla Vegetable Harvest Mobile Robot and Gripper)," IARJSET, Vol. 11, No. 9, Sept. 2024.</li> <li>Dong Hwa Kim, "The Impact on Job Replacement and Economy by TAG (Text to Art Generative)-AI," IARJSET, Vo. 11, No. 1, 2024, pp.1-17, 2024. ISSN2393-8021.</li> <li>Dong Hwa Kim, Dae Sung Seo, "A study on the impact of deep learning on Korean economic growth," IJIBC (KCI), Vol.15, No. 4, 2023, pp. 90-99.</li> </ul>
	• Dong Hwa Kim, "A study on the efficiency enhancement of self-directed learning and online lecture using emotional factor control, "EJSIT, Vo.3, No. 6, pp. 294-304, Dec, 2023. ISSN2786-4936
	• Dong Hwa Kim Rojina, "A Study on the Curriculum Design for K-12 Al Education Using Knowledge Graph," EJSIT, Vol. 4, No. 4, pp. 491-509, Oct. 2023. ISSN2786-4936.
	<ul> <li>Dong Hwa Kim, "Al Curriculum Design for Korea K-12 Al Education Through Analyzing Al Education Curriculum," IJRTE, Vol. 12, No. 3, pp. 72-81, Sept, 2023. ISSN 2277-3878</li> </ul>
	Dong Hwa Kim, "A Study on an Effective Teaching of AI Using Google Colab-Based DCGAN Deep Learning Model Building for Music Data Analysis and Genre Classification," IJRTE, Vol. 11, No. 6, pp. 13-25, March 2023.
	<ul> <li>Dong Hwa Kim, "A Study on The Job Replacement Impact of ChatGPT and Education Method", EJSIT, Aug 2023.</li> <li>Dong Hwa Kim, "Face Emotion Pattern Analysis of Korean Depending on Persons and Environments Using</li> </ul>
	DCGAN, IARJSET, Vol. 10, No. 9, pp. 72-81, Sept 2023, ISSN2393-8021.
	• Dong Hwa Kim, "A study on the impact of generative AI on Korean economy growth", IARJSET, Vol. 10, No. 9, pp. 251-270, Sept 2023. ISSN2393-8021.
	• Dong Hwa Kim, "A Study on Reinforcement of Self-Directed Learning Using Controlling Face Emotion," IJRTE (ISSN 2277-3878). Vol-10 Issue-5, Jan.2022, pp.76-80. (Scopus). Dong Hwa Kim, "Advanced Lecture for PID Controller of Nonlinear System in Python," IJRTE (ISSN 2277-3878). Vol-9 Issue-6, pp. 20-29, March 2021. (Scopus).
	• Dong Hwa Kim, Dynamic Decoupling and Intelligent Optimal PID Controller Tuning of Multivariable Qua-drones," IJRTE (Scopus), Vol. 10, No. 4, pp. 228-240, Dec. 2021.
	• Dong Hwa Kim, Young Sung Kim, "Failure Prediction of Wind Turbine using Neural Network and Operation Signal," IJRTE (Scopus), Vol. 10, No. 4, pp. 261-268, Dec. 2021.
	200 papers published in international Journal (Skip).
Project (2010- 2024)	<ul> <li>Cognitive reinforce/development for self-directed learning of online education and algorithm development of cognitive related for dementia prevention using emotional AI, KNRF, June 1, 2021-May 30, 2024 (3-years).</li> <li>Emotion robot and its application (KNRF), Sept.1, 2012-Feb. 2015.</li> </ul>
	• Dong Hwa Kim, Bio based artificial intelligence for technology transfer to company, University research fund,
	<ul> <li>Sept. 1, 2013-Aug 31, 2014.</li> <li>Dong Hwa Kim and Szilvester Kovacs, Artificial intelligence computing, Korea-Hungary Joint Research, Hanbat National University Fund, Aug.1, 2010 - Dec.15, 2011.</li> </ul>
	<ul> <li>Korea-Hungary Joint Work: Aug.1,2010-Feb.28,2011(6-Month), Participation in the research of Robot motion related topics of the ETOCOM project, consultation with research staff members and lectures</li> <li>Skip many things.</li> </ul>
	- Kalid Saeed (Poland), Dong Hwa (Korea), Image recognition and device by biometrics, July 2012.
Patent	- Skip many patents.

# · Marquis Who's Who selected great minds in 21 Century, Aug 2009

- Great Minds of the 21st Century 2007/2008, Feb. 8, 2008, ABI, USA
- Lifetime of Scientific Achievement Award, Feb. 8, 2008, IBC, UK
- One World Diverse Yet Intertwined Gold Medal for Korea2008, Feb. 2008, ABI, USA
- 2000 Outstanding Intellectuals of the 21st Century Awards, Feb. 15, 2008, ABI, USA.
- Top 100 Engineers 2008, Feb. 29, 2008, IBC, UK
- Universal Award of Accomplishment ABI, Jan. 25, 2008, USA.
- · ABI (the American Biographical Institute) registration, 2007/2008, USA.
- IBC (International Biographical Centre) Award Metal, April 2007, UK.
- Best researcher award (Best paper), the Hanbat National University July 19, 2006.
- Best paper award, "Robust PID controller tuning using multiobjective based on clonal selection of immune algorithm," KES2004 International conference, Sept. 20-25, 2004, Newzealand.
- Cambridge Blue Book, Great lives, Dictionary of International Biography, 2000 Outstanding Intellectuals of the 21st Century, July 2000, UK

Skip.

# **Supervisor Student**

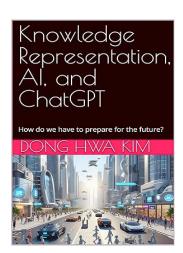
# Supervisor

**Award** 

Dawit Degetu, Dawit Nigussie, Emnet Ashenefi, Yosef Worku (Adam Science and Technology Univ., Ethiopia, 2020-2021), Lorin Czi, Ph.D Course (Lecture and Supervisor, Budapest University), Silvia Luckaova, Ph.D student (Ostrava University, Kosice University, Slovakia), M. Senthilkamar, (Annamaiai University, India), Hanbat National University Graduate school (Many, skip)

# Supervisory research topic

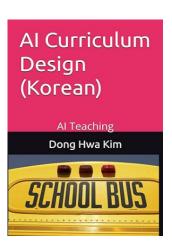
Several students as automatic control, robot, emotional robot and dancing robot, ICT technology and emotional function, Al application in Industry, Policy and strategy of Science and Technology, Convergence of Culture and S&T, Knowledge based Society and Technology.



# Amazon (Dec. 2024):

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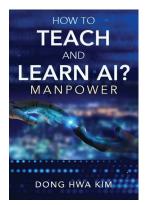
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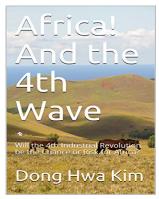
## Amazon Dec 2024,

https://www.amazon.com/AI-Curriculum-Design-Korean-Knowledge/dp/B0DQWYC9SG/ref =sr\_1\_7?dib=eyJ2IjoiMSJ9.PIPIbN C6r5GoLtWbpvO\_t6mrR1wcwJ3m cQbxvjIEONZBRkWCdfiAOStG36 mvOPW4j8iqCEG7eDMvjM79sOJ c8q6eldSCDFSruPzgpL8X6VBjTI NFHo5SppR4yIpq3CBbSdriCO

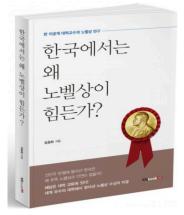
# ♦ Books (English Version)



How to Teach and Learn Al Outskirt press, USA, Aug 2022 (https://www.amazon.com/Ho w-Teach-Learn-Al-Manpower/dp/1977254292)



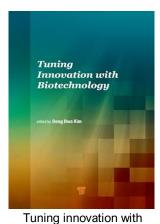
Africa and 4th wave (Amazon Kindle), 2020. https://www.amazon.com /Africa-4th-Wave-Industrial-Revolutionebook/dp/B08KZSLMTL



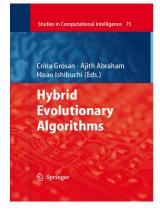
How cannot obtain Nobel award in Korea (Korean Version)? April, 2019



Visegrad Group and 4th Industrial Revolution



Biotechnology, (Pan Stanford Publishing, USA)2019. https://www.amazon.co m/Tuning-Innovation-Biotechnology-Dong-Hwa/dp/9814745359



Hybrid Evolutionary Algorithms (Computational Intelligence 75), Springer, Germany, Chapter 3, 4, April, 2007.

# LAMBERT Academic Fabilities

Visegrad group and 4<sup>th</sup> industrial revolution (LAMBERT, Germany), 2019.
Amazon:
https://www.amazon.ca/Visegrad-Group-4th-Industrial-Revolution/dp/6200241155 April, 2019.

# My Book at Online

#### 1. Knowledge representation, Al, and ChatGPT

https://www.amazon.com/Knowledge-Representation-Al-ChatGPT-prepare-ebook/dp/B0DP1VPPQ2/ref= monarch\_sidesheet\_title#detailBullets\_feature\_div

# 2. How to teach and learn AI (2022), ISBN: 978-1-9772-5429-0

#### Amazon:

https://www.amazon.com/How-Teach-Learn-Al Manpower/dp/1977254292/ref=sr 1 1?crid=ULJI609B9QI0&keywords= How+to+teach+and+Learn+Al&qid=1662101392&s=

books&sprefix=how+to+teach+and+learn+ai%2Cstripbooks-intl-ship%2C261&sr=1

# Booktopia:

https://www.booktopia.com.au/how-to-teach-and-learn-ai--dong-hwa-kim/book/9781977254290.html Alibris:

https://www.alibris.com/How-to-Teach-and-Learn-Al-Manpower-Dong-Hwa-Kim/book/51843381?matches=5

# Barns & Noble:

https://www.barnesandnoble.com/w/how-to-teach-and-learn-ai-dong-hwa-kim/1141917110

# eBay:

https://www.ebay.com/itm/295180764877

#### Japan Amazon:

https://www.amazon.co.jp/%E6%9C%AC-Kim-Dong-Hwa/s?rh=n%3A465392%2Cp 27%3AKim+Dong+Hwa

# 3. Africa and 4th Wave (2020), ISBN: 97807475954852-3`

Amazon: https://www.amazon.in/Africa-4th-Wave-Industrial-Revolution-ebook/dp/B08KZSLMTL

#### 4. Visegrad Group and 4th Industrial Revolution (2019), ISBN: 978-620-0-24115-3

Amazon: https://www.amazon.com/Visegrad-Group-4th-Industrial-Revolution/dp/6200241155

Barnes & Noble: https://www.barnesandnoble.com/w/visegrad-group-and-4th-industrial-revolution-dong-hwa-kim/1137820802

Orell fussli: https://www.orellfuessli.ch/shop/home/artikeldetails/A1056330307

Flipkart: https://www.flipkart.com/visegrad-group-4th-industrial-revolution/p/itme380a2a1ec3bc

# 5. Tuning innovation with biotechnology (2017), ISBN: 978-981-4745-35-2

Amazon: https://www.amazon.com/Tuning-Innovation-Biotechnology-Dong-Hwa-ebook/dp/B08R2CBRLF

Google book: https://books.google.co.kr/books/about/Tuning Innovation with Biotechnology.html?id=XmQ-DwAAQBAJ&redir esc=y

CRC: https://www.crcpress.com/Tuning-Innovation-with-Biotechnology/Kim/p/book/9789814745352

6. Why does not Korea produce a Nobel award? (Korean Version, March 2019), ISBN: 979-11-6299-599-0