

Field Signal processing, Machine Learning
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Educational background

1986-1990 Seoul National University (Ph.D. - The Department of Control and Instrumentation Engineering)

1984-1986 Seoul National University (Master of Engineering - The Department of Control and Instrumentation Engineering)

1980-1984 Seoul National University (Bachelor of Engineering - The Department of Control and Instrumentation Engineering)

Major careers

2022.07.-present Dean of Graduate School 2022.07.-present Vice President of Research Affairs 2018.01.-present Journal of Electronical Engineering and Technology Associate Editor 2017.09.-2019.12. Head of the Major in SmartloT 2016.09.-2020.01. Director of the Research Institute for Information and Electronics 2011.03-2011.06. Visiting professor at Mongolia International University 2006.05.-2008.04. Member of the self-assessment committee, Ministry of Planning & Budget 2006.01.-2009.12. Dean of the College of Information and Electronics Engineering 2006.01.-2007.12. Director of the Research Institute for Information and Electronics 2006.01.-2006.02. Head of BK21 Multimedia Application Technology Team 2005.02.-2006.01. Dean of Division of Information and **Communication Engineering** 2004.03.-2005.01. Visiting scholar at University of California at Santa Barbara 2001.09.-2002.08. Head of BK21 Multimedia Application Technology Team 2001-2002 Deputy Team Manager of BK21 1999.03.-2000.02. Head of the Major in Electronic Engineering 1999.02.-2000.01. Dean of the Major in Electronic Engineering

1993-1994 Visiting Researcher of the Human Interface
Institute, NTT, Japan
1992-1998 Senior researcher of the Telecommunication
Network Research Center, KT
1990-1992 Senior researcher of the HDTV Development
Center, the Korea Institute of Industrial Technology

Studies & Books

1. "Bio-inspired vision mimetics towards next generation collision avoidance automation," The Innovation, December 2022: 100368, (preprint)

2. "Human-Factors-in-Driving-Loop: Driver Identification and Verification via a Deep Learning Approach using Psychological Behavioral Data," IEEE Transactions on Intelligent Transportation Systems, December 2022: (early access)

3. "The Alleviation of Perceptual Blindness During Driving in Urban Areas Guided by Saccades Recommendation," IEEE Transactions on Intelligent Transportation Systems, vol. 23, no. 9, pp. 16386 - 16396, September 2022.

4. "The Improvement of Road Driving Safety Guided by Visual Inattentional Blindness," IEEE Transactions on Intelligent Transportation Systems, vol. 23, no. 6, pp. 4972 - 4981, June 2022.

5. "A Generative Adversarial Network to Denoise Depth Maps for Quality Improvement of DIBR-Synthesized Stereoscopic Images," Journal of Electrical Engineering and Technology, vol. 16, no. 4, pp. 2201-2210, July 2021.

6. "Improvement of Viewing Experience on Stereoscopic Image Guided by Human Stereo Vision," Multimedia Tools and Applications, vol. 78, pp. 4377-4394, February, 2020.

7. "A temporally irreversible visual attention model based on motion sensitive neuron models," IEEE Transactions on Industrial Informatics , vol. 16, no. 1, pp. 595-605, Jan. 2020.

8. "Improvement of Viewing Experience on Stereoscopic Image Guided by Human Stereo Vision," (Multimedia Tools and Applications, 2019)

9. "A bio-inspired motion sensitive model and its application to estimating human gaze positions under classified driving conditions," (Neurocomputing, 2019)

10. "Eye fixation location recommendation in advanced driver assistance system," (Journal of Electrical Engineering and Technology, 2019)

11. "No-reference image quality assessment using independent component analysis and convolutional neural network,

(Journal of Electrical Engineering and Technology, 2019)

12. "Recognition of multiple concatenated arm gestures using six-axis inertial sensor signals," (International Journal of Control and Automation, 2018)

13. "Short-range visible light positioning based on angle of arrival for smart indoor service," (Journal of Electrical Engineering and Technology, 2018)

14. "An Implementation of Gesture Interaction for Inner Object Selection and Its Application to AR Advertising", (International Journal of Applied Engineering Research, 2016)

15. "A Decentralized Approach to Geometric Video Correction for Network-based Video Wall", International Journal of u- and e- Service, (Science and Technology, 2015)

16. "An implementation of content management systems for augmented reality advertising", (International Journal of Applied Engineering Research, 2015)

17. "Infrared Data Measurement Modeling and Non-Uniformity Correction (NUC) (Algorithm for Infrared Detector", 2013)

18. "Theoretical design and dnalysis of EDFA gain control system based on two-level EDFA model", (Studies in Informatics and Control, 2013)

19. "EDFA Gain Control using Disturbance Observer Technique", (International Journal of Control and Automation, 2013)

20. "Filter bank approach to clutter filtering in ultrasound imaging", (Communications in Computer and Information Science, 2012)

21. "A novel MDL-based compression method for power quality applications," (IEEE Transactions on Power Electonics IEEE, 2006)

22. "A preprocessing approach to improving the quality of the music decoded by an EVRC codec", (IEICE Transactions on Communications IEICE, 2003)

23. VoiceXML for building voice web applications (Hanbit Media, 2001) (in Korean)

24. "Postprocessing for vector quantized images based on projection onto hypercubes", IEEE Transactions on Circuits and Systems for Video Technology, (IEEE, 2001)

25. "Theory of projection onto narrow quantization constraint set and its application", IEEE Transactions on Image Processing (IEEE, 1999)

Others

[Main Research Fields] Electron, Information and Communication Engineering, Machine Learning, Signal Processing

[Main Career (Social Experience)]
2004-2005 Visiting professor at University of California, Santa Barbara
1993-1994 Visiting Researcher of the Human Interface Institute, NTT, Japan
1992-1998 Senior researcher of the Telecommunication Network Research Center, KT
1990-1992 Senior researcher of the HDTV Development Center, the Korea Institute of Industrial Technology

[Affiliated Society] Korean Electronic Engineering Association IEEE