Hyunwook Kang

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Brief Introduction

I am a Ph.D. student at the Catholic University of Korea, where I am advised by Minji Lee. My research involves developing novel skills in human-computer interaction, particularly for multimodal emotion recognition.

Research Interests

Broad Interests	Multimodal Machine Learning, Explainable AI, Knowledege Distillation
Applications	Affective Computing, Sleep Care, Imagined Speech.

Education

2025-2029	**The Catholic University of Korea, South Korea** Ph.D. in Healthcare and Artificial Intelligence
2022-2025	**Inha University, South Korea** M.S. in Electrical and Computer Engineering
2013-2015	**The University of Newcastle, Australia** B.S. in Information Technology
2012	**Sogang University**

Research Internships

2021-2022	National University of Singapore *Research Assistant* Zero-shot visual emotion recognition by exploiting BERT Mentored by: Devamanyu Hazarika Paper: https://link.springer.com/chapter/10.1007/978-3-031-16078-3_33

Teaching

Mar-Jun 2024	Data Structures in Python
2020-21 2019-20	Data Structures in C

Academic Achievements

International Conferences

2025 (Oral)	*Multimodal emotion recognition from EEG and ECG signals via parallel fusion of Graph convolution and LSTMs*, **Hyunwook Kang**, M. Lee, EMBC 2025
2025	*Phoneme classification in imagined speech using explainable machine learning*, S. Kim, **Hyunwook Kang**, J. H. Jeong, M. Lee, BCI 2025

2024 | *Cascading global and sequential temporal representations with local context modeling for EEG-based emotion recognition*, **Hyunwook Kang**, J. W. Choi, B. H. Kim, ICPR 2024

2022 | *Zero-shot visual emotion recognition by exploiting BERT*, **Hyunwook Kang**, D. Hazarika, D. Kim, J. Kim, IntelliSys 2022

International Journals

2025 | *Convolutional Channel Modulator for Transformer and LSTM Networks in EEG-based Emotion Recognition*, **Hyunwook Kang**, J. W. Choi, B. H. Kim, Biomed. Eng. Lett. 2025

Domestic Journals

2024 | *ConTL: Improving the Performance of EEG-based Emotion Recognition via the Incorporation of CNN, Transformer and LSTM*, **Hyunwook Kang**, B. H. Kim JOK 2024

2021 | *Efficient Visual Sentiment Detector using Knowledge Distillation*, **Hyun Wook Kang**, K. Kim JKIIT 2021

Research Impact

Bibliometrics | Google Scholar citations: **30**; h-index: **2**

Awards

2025 | Outstanding research award from Inha University

Military Service

2016 - 2018 | Gangwon-do, InJe
Security guard at the front line of South Korea