HyunSub Kim

Curriculum Vitae December 10th, 2023

Personal Data

Address:	222, Wangsimni-ro, Seongdong-gu, Seoul, 04763, Republic of Korea
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Education

2017 – 2022	**Hanyang University** Bachelor of Science, Major in Mathematics and in Biomedical Engineering Minor in Film and Theatre
2023 – Present	**Hanyang University** M.S.-Ph.D., Electronic Engineering

Research Interest

Human-computer Interface, Biomedical Signal Processing, Artificial Intelligence, Virtual Reality/Augmented Reality

Publications and Manuscripts in Preparation

[1] Kim, C., Kim, C., Kim, HS., Kwak, H., Lee, W., & Im, C. H. Facial electromyogram-based facial gesture recognition for hands-free control of an AR/VR environment: optimal gesture set selection and validation of feasibility as an assistive technology. *Biomed. Eng. Lett.* 13, 465–473 (2023). https://doi.org/10.1007/s13534-023-00277-9

[2] Kim, HS., Kim, C., Kim, C., Kwak, H., & Im, C. H. Development of a New User Authentication Method Based on Eye-Writing Patterns Identified from Electrooculography for VR Applications, *IEEE TIFS*, (submitted)

PATENTS

February 2023	**Korean Patents (10-2023-0024266)** 안구전도를 이용한 안구 움직임 패턴 기반의 개인인증 수행 시스템 및 방법 김현섭 박현철 곽휘권 김정환 임창환 이우진 김국병 하영석

RESEARCH AND PROFESSIONAL EXPERIENCES

March 2021 - Present	**Biomedical signal analysis for biometric recognition/motor control technology on stand-alone AR glasses** In the Industry-academia Collaboration Project
July 2020 – February 2021	**EMG signal analysis for hand gesture control system on stand-alone AR glasses** In the Georgia Tech Collaboration Project
December 2019 – June 2020	**Development of a motion sickness detection system using EEG analysis** In the Industry-academia Collaboration Project

INTERNATIONAL CONFERENCES (SELECTED)

July 2023	**IEEE EMBC (Poster Session)** Development of a New User Authentication Method Based on Eye-Writing Patterns Identified from Electrooculography for VR Applications

SELECTED SKILLS

Statistical software:	SAS
Data Analysis software:	Matlab, Python (Keras, Pytorch etc)
For experimental research:	E-prime, Unity, Biosemi
For making Applications:	Kotlin, Java

REFERENCES

Available on Request