Hyunkyu Jang

https://linkedin.com/in/hkjang

Email : hkjang@kentech.ac.kr
Mobile : +82-10-6425-9219

EDUCATION

Korea Institute of Energy Technology (KENTECH)　　　　　　　　**Mar. 2023 – present**
Unbdergraduate　　　　　　　　Naju-si, South Korea
Major: Energy Engineering

University of California, Berkeley　　　　　　　　**Jun. 2023 – Aug. 2023**
Int'l Visiting Student　　　　　　　　California, United States
Subject: Computer Science, Social Science

Seoul National University (SNU)　　　　　　　　**Dec. 2023 – Jan. 2024**
Domestic Credit Transfer Student　　　　　　　　Seoul, South Korea

RESEARCH INTERESTS

Wireless Communication, Smart Grids, HCI, Signal Processing

RECENT PUBLICATIONS

Conference Publications

C1. M. Salman, **H. Jang**, Y. Noh, S. Jin, D. Jeong, H. Choi, K. Han, H. Kim. A Contactless and Non-Intrusive System for Driver's Stress Detection. Presented in UbiComp 2023 (top-tier, 20% acceptance rate).

RESEARCH AND ACADEMIC EXPERIENCE

Research Experience

Undergraduate Researcher at Korea Institute of Energy Technology (KENTECH)　　　　　　　　Dec. 2022 – Present
Intelligent Mobile Computing Lab (*Naju-si, South Korea*)

- Working on data pre-processing, experiment hardware design for HCI including driver's stress detection
- Partially working on Smart Grids for campus micro grids

Work Experience

Undergraduate Intern　　　　　　　　Aug. 2023
Korea Water Resources Corporation (K-Water) (*Daejeon, South Korea*)

- Worked on flooding solution system development, Technology research/review, market research.

Service Experience

Founding President of Undergraduate Student Council　　　　　　　　May. 2022 – Jun. 2023
Korea Institute of Energy Technology (*Naju-si, South Korea*)

- Served as the first president of Undergraduate student union and Representative, establishing student organizations.

3rd Chairman of Undergraduate Student Council Central Election Commission　　　　　　　　July. 2023 – present
Korea Institute of Energy Technology (*Naju-si, South Korea*)

- Chair of Undergraduate Student Election Commission.

Team Leader of CES 2024 Visiting Program　　　　　　　　Jan. 2024
Korea Institute of Energy Technology (*Naju-si, South Korea*)

- Selected as team leader of CES 2024 Visiting program offered by International Office of KENTECH

Education Innovation Panel　　　　　　　　Nov. 2022 – present
Korea Institute of Energy Technology (*Naju-si, South Korea*)

- 1st and 2nd Learner Education Innovation Panel of KENTECH Education Innovation Center. Worked for innovative and effective learning of undergraduates

Ongoing and Completed Projects

Ongoing Projects

- **Contactless Stress Monitoring of a Driver (Hyundai Motors Project):** Utilizing a contactless approach, we gather multimodal data from the driver. This includes physiological metrics like heart rate variability and breathing via mmWave radar, facial emotions from video, and ground truth data from devices like Polar H10 and E4. The collected data undergoes fusion for unification, followed by the deep learning model for classifying the driver's stress state (Positioning paper published in UbiComp 2023).

Programming and Technical Skills

Languages: Python, MATLAB, and C++.
Developer Tools: Jupyter Notebook, SQL Browser for SQLite 3
Technologies/Frameworks: MS Office, GitHub, Fusion 360 and ZOOM

Distinction Awards

- **University Contribution Award** recognized by peers and presented by university president as top 3 undergraduate.

- **Student Council Contribution Award** awarded by the Dean of Student Affairs as serving as the founding president of undergraduate student council.

- **Mentor-ship Commendation** for outstanding contribution in mentoring high school studnets, honered by the head of Naju-si Office of Education

- **President 1 Scholarship** from KENTECH: 102,400,000 KRW

Professional Registration

- Member of the Association for Computing Machinery (ACM), since 2024.

Language Proficiency

- **English** (Fluent).

- **Korean** (Mother tongue).