성균관대학교
SUNGKYUNKWAN UNIVERSITY(SKKU)

# AUTOMATION LAB
# INTELLIGENT VISION & MOTION CONTROL

*We are looking for motivated graduated students to work in the computer vision and deep learning discipline at the Automation Lab, Sungkyunkwan University, South Korea.*

## Lab Head


- **Professor Jae Wook Jeon**
- **Affiliation**: Electrical and Computer Engineering, Sungkyunkwan University.
- **Google scholar**: https://scholar.google.com/citations?user=9z0SfKoAAAAJ&hl=en&oi=ao


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| **Positions** | • **Ph.D.** in Computer Engineering (4 years)<br>• **Combined Master + Ph.D.** in Computer Engineering (5 years) |
| **Starting Date** | Application acceptance starting from **06/03/2023** to **24/06/2023**<br>Fall semester starting from **29/08/2023** |
| **Background** | Excellent or have knowledge in image processing, computer vision, control theory, embedded system, robotics, and deep learning. |
| **Experience** | • Experience in programming and coding (C++, Python).<br>• Excellent English level (at least IELTS 5.5) and can communicate well. |
| **Research Focus** | The group's research interests focus on the development of new, versatile techniques to improve or create novel functions in computer vision and motion control using deterministic and deep learning methods. Our group regularly attends international challenges and contests hosted at top conferences (CVPR, ICCV, ECCV).<br><br>Currently, we focus on the following topics:<br>• **INTELLIGENT VISION:**<br>  • **Intelligent traffic system**<br>  • **Vision-assisted industrial applications**<br>  • **Semantic Segmentation**<br>  • **Image enhancement**<br>  • **Synthetic image generation**<br><br>• **MOTION CONTROL:**<br>  • **High performance controller for BLDC motor**<br>  • **5DOF Industrial robot**<br>  • **Machine failure prognosis** |

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| **Funding** | Currently, we receive funding for the following projects:<br>• **Intelligent traffic system** (SWStarLab research program)**:**<br>▪ Vehicle detection and tracking<br>▪ Road-lane detection<br>▪ Speed estimation<br>▪ Traffic congestion estimation<br>▪ Traffic anomaly event detection |
| **Scholarship** | • 100% tuition: 7,500,000 KRW/semester **(require GPA >= 3.8/4.5)**<br>• Support living fee: 1,000,000 KRW/month (before tax). |
| **Environments** | • **Working time:** 10 am – 6 pm<br>• **6x High-performance deep learning servers** for researching.<br>• High performance personal PC (Nvidia GeForce RTX 3090 or Nvidia Titan XP). |
| **Requisites** | High motivation and can work in high-intensity environments |
| **Webpage** (additional info) | https://micro.skku.ac.kr/micro/index.do |

Applications should be submitted to: phlong@skku.edu including:

- **CV** and **Transcripts** in the scale of 4.0.
- **Optional**: motivation letter, research summary, recommendation letters, etc.
- Please state clearly whether you want to join the **vision team** or the **motion team**.