

Yong Seok LEE

PERSONAL DATA

Graduate Student
MARCH Lab., Department of Mechanical Engineering,
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RESEARCH INTERESTS

Robotic Non-prehensile Manipulation

- Accurate pushing manipulation under uncertain object properties
- Robot control for a pushing manipulation
- Modeling of multi-contact pushing system

In-hand Manipulation via Learning from Demonstration (LfD)

- Multimodal-based dexterous in-hand manipulation
- Human skill transfer for complex in-hand manipulations
- Bilateral feedback system for robot hand teleoperation

EDUCATION & INTERNSHIP & STUDYING ABROAD

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|-----------------|---|
| 2024.03- | Ph.D Student in Department of Mechanical Engineering, POSTECH
Advisor: Prof. Kee Hoon KIM |
| 2022.03-2024.02 | M.S. in Department of Mechanical Engineering, POSTECH
Advisor: Prof. Kee Hoon KIM
Thesis: Robotic Pushing Manipulation through Online Vision-Based Estimation of Unknown Model Parameters |
| 2018.03-2022.02 | B.S. in Department of Mechanical Engineering, POSTECH
GPA 4.04/4.3 |
| 2021.03-2021.12 | Internship, MARCH Lab. (POSTECH) |

AWARDS AND HONORS

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| 2025.02 | Silver Prize of <i>The 31th Humantech Paper Award</i> by Samsung Electronics
제 31회 휴먼테크논문대상 은상 |
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PUBLICATIONS

International Journal Articles

1. **Yongseok Lee**, and Keehoon Kim, "Accurate Robotic Pushing Manipulation through Online Model Estimation under Uncertain Object Properties," *IEEE Robotics and Automation Letters* (2024).

International Conference Papers

1. **Yongseok Lee**, and Keehoon Kim, "Goal-Driven Robotic Pushing Manipulation Under Uncertain Object Properties," *IEEE International Conference on Robotics and Automation* (2025).

Domestic Journal and Conference

2. **Yongseok Lee**, and Keehoon Kim, "Goal-Driven Robotic Pushing Manipulation through Model Predictive Path Integral," *The 20th Korea Robotics Society Annual Conference* (2025).
1. **Yongseok Lee**, and Keehoon Kim, "Fast Online Adaptive Model for Robotic Pushing Manipulation in Unknown Parameters," *The 19th Korea Robotics Society Annual Conference* (2024).

LANGUAGES, SKILLS AND ABILITIES

Languages	Korean (mothertongue) English (intermediate)
Computer Skills	MATLAB, C/C++, Python MFC, Simulink SolidWorks, AutoCAD, Inventor Physics Simulator - PyBullet, IsaacSim/Gym/Lab, Genesis Real-time programming (Xenomai)
Hardware & Equipment	8-channel wireless sEMG-motion sensors (LogonU) sEMG sensors (Delsys, Noraxon, Thalmic MYO) 3D printing, Laser cutting Embedded - Arduino Robot arm - Indy7 & IndyRP2 (Neuromeka) Robot arm - Panda & FR3 (Franka Emika) Motion tracker - VIVE (HTC)
Recent Technologies	Deep learning
ETC.	-

INTERESTS AND ACTIVITIES

Guitar