

# Gihyeon Lee

+82 010-9599-2106  
None  
Republic of Korea

in [gihyeonlee99](#)  
✉ [leekh951@naver.com](mailto:leekh951@naver.com)  
⌚ [Leekh951](#)

## Research Interests

<b>Semantic SLAM</b>	Object-based SLAM, Scene Graph Registration
<b>Spatial AI</b>	Semantic Scene Understanding, Graph-based VLN

## Education

### Inha University

Master's degree program

*Thesis: Multi-Label Likelihood-based Semantic Graph Matching for Object-Level Global Localization*  
advisor: Younggun Cho

### Inha University

Bachelor's degree program

Major: Mechanical engineering

Total GPA: 4.36/4.5, Major GPA: 4.39/4.5

Final grade: 2/260

*Thesis: Study of Deep Learning Based Specific Person Following Mobility Control for Logistics Transportation*

Inha University

Mar 2024 – Feb 2026

Inha University

Mar 2018 – Feb 2024

## Publication

### MSG-Loc: Multi-Label Likelihood-based Semantic Graph Matching for Object-Level Global Localization

IEEE Robotics and Automation Letters

2025

**Gihyeon Lee**, Jungwoo Lee, Juwon Kim, Young-Sik Shin and Younggun Cho

### Polaris dataset: A maritime object detection and tracking dataset in pohang canal

IEEE International Conference on Robotics and Automation (ICRA)

2024

Jiwon Choi, Dongjin Cho, **Gihyeon Lee**, Hogyun Kim, Geonmo Yang, Joowan Kim and Younggun Cho

### Study on Efficient Multi-floor Navigation Using a Visual Marker and Floor Plan Map

Journal of Institute of Control, Robotics and Systems

2024

Jiwon Choi, Taehu Sim, **Gihyeon Lee**, Jaeyong Lee, Gilhwan Kang, Hogyun Kim and Younggun Cho

### Study of Deep Learning Based Specific Person Following Mobility Control for Logistics Transportation

Journal of Drive and Control

2023

Yeong Jun Yu, SeongHoon Kang, JuHwan Kim, SeongIn No, **Gihyeon Lee**, Seung Yong Lee, Chul-hee Lee

## Workshop

### MUST-Loc: Multi-view Uncertainty-aware Semantic Token Association for Object-level Global Localization

IROS 2025 Workshop: Open World Navigation in Human-centric Environments

2025

**Gihyeon Lee**, Young-Sik Shin and Younggun Cho

## Awards

**Best Award (Minister of Trade, Industry and Energy Award)**Embedded Software Competition  
(Industry-Academic Project) 2024**Excellence Award (2024 Aero Future Tech & Business)**

Hanwha Aerospace 2024

**Best Paper Award (ICROS 2024)**

Institute of Control, Robotics and Systems 2024

**The Best Engineer Award (Dean's List)**

Inha University College of Engineering 2023

**Hanium ICT Mentoring Contest 3rd place**

The Federation of Korean Information Industries (FKII) 2023

**Outstanding U-grad Paper Award (ICROS 2023)**

Institute of Control, Robotics and Systems 2023

**Outstanding U-grad Paper Award (ACK 2022)**

Korea Information Processing Society 2022

**Hanium ICT Mentoring Contest Honorable Mention**

The Federation of Korean Information Industries (FKII) 2022

**Inha Comprehensive Design Competition 3rd place**

Inha Engineering Education Innovation Center 2022

**Scholarship****The National Scholarship for Science and Engineering**

Korea Student Aid Foundation 2022-23

**Excellence Scholarship**

Inha University 2018-21

**Skills****Programming Languages**

C++, Python