Seongchang Park

Interested in Robotics SW,
Multi-Robot System

📞 +82-10-3088-4871
🌐 https://bigbigpark.github.io
@ scsc1125@gmail.com

Social Network

⊙ Github
⊙ Instagram

Languages

🇰🇷 Korean   ● ● ● ● ●
🇺🇸 English   ● ● ● ● ○

Tech Skills

</> C/C++

▲ ROS

▲ Git

Experience

Research:

2023-Today()	**Development of Unmanned Surveillance Vehicle for National Defense**	Hanwha Systems

Supported by Agency for Defence Development(ADD)
- SW design and implementation of Unmmaned Surveillance Vehilce
- C++ programming using MFC

2021-2023	**Unmanned Swarm CPS Research Laboratory**	Soonchunhyang Univ.

Supported by Agency for Defence Development(ADD)
- Proposed distributed MPC-based formation control algorithm
- Collision avoidance algorithms of multi-robot system
- Leader-follower control scheme and hierarchical communication topology and tested on real-world robot platforms

2022-2023	**Development of A Sensor Fusion-Based Global Map Building Algorithm For Autonomous Navigation**	Soonchunhyang Univ.

Supported by Seadronix
- Global map building algorithm using LiDAR and GPS sensors
- Optimization-based SLAM of Unmmaned Surface Vehicle(USV)

2020-2021	**Autonomous Driving Challenge**	Keimyung Univ.

Supported by Hyundai Motor Group(HMG)
- LiDAR-based algorithms of detecting curb, lane and object on road
- Sensor interface and Hardware intergration of KIA Niro EV
- C++ algorithms using ROS

Publications

2023	**Formation Reconfiguration Control With Collision Avoidance of Nonholonomic Mobile Robots**

IEEE Robotics Automation and Letters(RA-L), IF 5.2
Seongchang Park and Seungmok Lee

2022	**Distributed model predictive formation control of a UGV swarm guaranteeing collision avoidance**

IEMEK Journal of Embedded Systems and Applications, in Korean.
Seongchang Park and Seungmok Lee

Education

2022 – 2023	**Master's Science Degree**	Soonchunhyang Univ.

in Future Convergence Technology

2021 – 2022	**Master's Science Degree**	Keimyung Univ.

in Mechanical Engineering
(*Transfer after dropout*)

2015 – 2021	**Bachelor's Science Degree**	Keimyung Univ.

in Electronic Engineering (**GPA: 4.41/4.5**)

Seongchang
Park

Interested in Robotics SW, Multi-Robot System

Honors

2022	**Graduate Student Research Scholarship** Full Tuition	Soonchunhyang University
2020-2	**Academic Excellent Scholarship** One-third Tuition	Keimyung University
2020-1	**Academic Excellent Scholarship** One-third Tuition	Keimyung University
2020-1	**Principle Special Scholarship** For the students who got great scores	Keimyung University
2019-2	**K-STAR T Scholarship** For K-STAR Members in the school	Keimyung University
2019-2	**Academic Excellent Scholarship** Half Tuition	Keimyung University
2019-2	**Principle Special Scholarship** For the students who got great scores	Keimyung University
2019-1	**Academic Excellent Scholarship** Full Tuition (**Top** student in the department)	Keimyung University
2019-1	**Language Skill Improvement Scholarship** In the case of TOEIC	Keimyung University
2019-1	**Principle Special Scholarship** For the students who got great scores	Keimyung University
2018-2	**Academic Excellent Scholarship** Half Tuition	Keimyung University
2018-1	**SAP Overseas Study Scholarship** For all possible expenses in Philippines	Keimyung University
2018-1	**Principle Special Scholarship** For the students who got great scores	Keimyung University
2016-1	**Academic Excellent Scholarship** Full Tuition (**Top** student in the department)	Keimyung University
2015-2	**Academic Excellent Scholarship** Half Tuition	Keimyung University

Awards

2021	**Challenge Prize** for Autonomous Driving Challenge	HMG
2021	**Special Prize** for Autonomous Driving Challenge	Mayor in Seoul
2020	**3rd Prize** International Student AV Car Competition	TS
2020	Special Prize in Capstone Design	Keimyung Univ.
2020	**1st Prize** at ICT Advanced Future Technology Convergence Camp	Yeungnam Univ.