Hyoin Kim

Robot software engineer
Samsung Electronics,
South Korea.

Personal Info

Mobile Phone
+82)10-6715-0509

Email
rlagydls@gmail.com
hinkim.rr@gmail.com

Website
https://hyoin.kim

Youtube
https://url.kr/nch2li

Skills

C++/C
8/10

ROS
7/10

Python
6/10

MATLAB
9/10

Latex
10/10

Languages

English
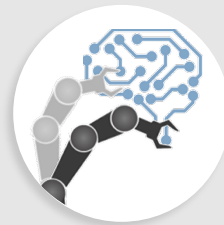8/10

Research interests
- Autonomous navigation
- Motion planning
- Learning from demonstration
- Mobile manipulation systems
- Multi-robot systems

Motion planning   Mobile manipulation systems   Learning from demonstrations

Educations

2014. 03 – 2020. 08	Seoul National University, Seoul, Republic of Korea M.S./Ph.D. in Mechanical and Aerospace Engineering Lab: Labs for Autonomous Robotics Research (LARR) Advisor: H. Jin Kim GPA: 3.79 / 4.3
2014. 02	Hanyang University, Seoul, Republic of Korea B.S. in Mechanical Engineering Advisor: Junhong Park GPA: 3.96 / 4.5

Academic experiences

2018. 06 – 2018. 08	Visiting researcher @ U. C. Berkeley Collaborate research with Hybrid systems group in Electrical Engineering and Computer Sciences at University of California, Berkeley, CA, USA

Major activities

Projects

2014 .03– present	Multiple Industry-Academia-Government Research Projects 11 Research participant (RP) 4 Project Manager (PM) 1 Project Leader (PL)

International Seminar

2019. 10	Asian Deans' Forum 2019: The Rising Stars Women in Engineering Workshop Invited rising star
2017. 12	The 1st KAST-KSSEA Young Generation Scientists & Engineers Open Forum Invited young engineer

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Honors

2017 Best student paper award finalist in IEEE International Conference on Robotics and Automation (ICRA 2017), The first author

2015 Young women engineer's paper in 30th Institute of control, robotics and systems annual conference (ICROS 2015), The first author

2013 2nd B.S paper prize, Hanyang University, Coauthor

Publications

Ph. D. dissertation

"Learning and Generalizing Complex Robot Motion Skills with Movement Primitives"

International Journals (5 papers)

- H. Kim, C. Oh, I. Jang, S. Park, H. Seo and H. J. Kim, "Learning and Generalizing Cooperative Manipulation Skills Using Parametric Dynamic Movement Primitives," IEEE Trans. Autom. Sci. Eng., vol. 19, no. 2, to appear, 2022.
  SCIE (IF:5.143)
- H. Kim, H. Seo, S. Choi, C. J. Tomlin, and H. J. Kim, "Incorporating safety into parametric dynamic movement primitives," IEEE Robot. Autom. Lett., vol. 4, no. 3, pp. 2260–2267, 2019.
  SCIE (IF:3.741)
- H. Kim, H. Seo, C. Y. Son, H. Lee, S. Kim, and H. J. Kim, "Cooperation in the air: A learning-based approach for efficient motion planning of aerial manipulators," IEEE Robot. Autom. Mag., vol. 25, no.nbsp;4, pp. 76–85, Dec. 2018.
  SCIE (IF:4.250)

- H. Lee, H. Kim, W. Kim and H. J. Kim, , "An Integrated Framework for Cooperative Aerial Manipulators in Unknown Environments," IEEE Robot. Autom. Lett., vol.3, issue. 3, pp. 2307-2314, 2018.
  SCIE (IF:3.741)
- H. Lee, H. Kim, and H. J. Kim, "Planning and control for collision free cooperative aerial transportation," IEEE Trans. Autom. Sci. Eng., vol. 15, no. 1, pp. 189–201, 2018.
  SCIE (IF:5.143)

International Conferences (7 papers)

- H. Kim, H. Seo, J. Kim, and H. J. Kim, "Sampling-based Motion Planning for Aerial Pick-and-Place," IEEE/RSJ Int. Conf. Intelligent Robots and Systems, 2019, pp. 7402-7408.

- H. Kim, H. Lee, S. Choi, Y.-K. Noh, and H. J. Kim, "Motion planning with movement primitives for cooperative aerial transportation in obstacle environment," in Proc. IEEE Int. Conf. Robotics and Automation, 2017, pp. 2328–2334. Best Student Paper Award Finalist