Dongjae Lee

Address: 504, Bldg. 300, Seoul National University, Gwanak-gu, Seoul 08826, Republic of Korea
Webpage: https://dongjaelee95.github.io **Mobile:** +82 10 9395 9605 **Email:** ehdwo713@snu.ac.kr
Research Interests: Robotics, Aerial Manipulation, Motion Planning, Robust Control, Optimal Control

EDUCATION

Seoul National University, Republic of Korea   Sep. 2020 – present
Ph.D. Student in Aerospace Engineering
· Advisor: Prof. H. Jin Kim
· Research Focus: aerial manipulation for a robot-enviroment interaction

Seoul National University, Republic of Korea   Sep. 2018 – Aug. 2020
M.S. in Mechanical and Aerospace Engineering
· Thesis: Opening a Hinged Door with an Aerial Manipulator using Model Predictive Control
· Advisor: Prof. H. Jin Kim
· Cumulative GPA: 4.19/4.3

Seoul National University, Republic of Korea   Mar. 2014 – Feb. 2018
B.S. in Mechanical and Aerospace Engineering
· GPA: 3.82/4.3 (cumulative) 3.92/4.3 (in major) Cum Laude

PROJECTS

Excavator automation, optimization-based motion planning   Feb. 2020 – present
LARR-Hyundai Construction Equipment (HCE) Project

Cooperative aerial transportation, outdoor experiment   Feb. 2020 – May. 2020
LARR-Ministry of Trade, Industry and Energy (MoTIE) Project

Aerial transportation, platform design & outdoor experiment   Jan. 2019 – Dec. 2019
LARR-Ministry of Trade, Industry and Energy (MoTIE) Project

PUBLICATIONS

T-Mech	IEEE/ASME Transactions on Mechatronics
RA-L	IEEE Robotics and Automation Letters
ICRA	IEEE International Conference on Robotics and Automation
ICCAS	International Conference on Control, Automation and Systems

INTERNATIONAL JOURNALS

Dongjae Lee, Hoseong Seo, Inkyu Jang, Seung Jae Lee and H. Jin Kim, "Aerial Manipulator Pushing a Movable Structure using a DOB-based Robust Controller," RA-L, 2021.

Seung Jae Lee, **Dongjae Lee**, Junha Kim, Dabin Kim, Inkyu Jang, and H. Jin Kim, "Fully-Actuated Autonomous Flight of Thruster-Tilting Multirotor," T-Mech, 2020.

INTERNATIONAL CONFERENCES

Inkyu Jang, **Dongjae Lee**, and H. Jin Kim, "Provably Safe Real-Time Receding Horizon Trajectory Planning for Linear Time-Invariant Systems," ICCAS, 2020.

Jeonghyun Byun, **Dongjae Lee**, H. Jin Kim, and Hyeonbeom Lee, "On-line Parameter Estimation of a Hexacopter Equipped with 2-DOF Robotic Arm against Disturbance," ICCAS, 2020.

Dongjae Lee, Hoseong Seo, Dabin Kim, and H. Jin Kim, "Trajectory Planning with Safety Guaranty for a Multirotor based on the Forward and Backward Reachability Analysis," ICRA, 2020.

Hoseong Seo, Clark Youngdong Son, **Dongjae Lee**, and H. Jin Kim, "Aerial manipulation using Model Predictive Control for Opening a Hinged Door," ICRA, 2020.

Dongjae Lee, Dohyun Jang, Hoseong Seo, and H. Jin Kim, "Model predictive control for an aerial manipulator opening a hinged door," ICCAS, 2019.

Seung Jae Lee, **Dongjae Lee**, and H. Jin Kim, "Cargo Transportation Strategy using T 3-Multirotor UAV," ICRA, 2019.

HONORS, AWARDS, SCHOLARSHIPS

· Brain Korea 21 (BK21) Scholarship	Sep. 2018 – present
· Lecture & Research Scholarship	Sep. 2020 – Dec. 2020
· National Scholarship for Science and Engineering	Feb. 2016

EXPERIENCES

Teaching Assistant, Seoul National University *Introductory Engineering Probability*	Sep. 2018 – Dec. 2018
Research Internship, Seoul National University *Laboratory for Autonomous Robotics Research (LARR)*	Apr. 2018 – Aug. 2018

SKILLS

Programming	C/C++, Matlab, Simulink, ROS
Languages	Korean (native), English (proficient)
Tools	Vim, Git, Solidworks, Onshape

Last update: January 7, 2021