

Jeonghyun Byun

PHD STUDENT

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Education

Seoul National University

PHD AEROSPACE ENGINEERING

- Advisor: H. Jin Kim

Seoul, Republic of Korea

2020.03.02 -

Seoul National University

BS AEROSPACE ENGINEERING

- GPA: 4.05 / 4.3
- Dissertation: Simulation of the object grabbing using a hexacopter with a 2-DOF robotic arm
- Advisor: H. Jin Kim

Seoul, Republic of Korea

2016.03.02 - 2020.02.26

Publications

INTERNATIONAL JOURNALS

Dongjae Lee¹, **Jeonghyun Byun**, H. Jin Kim. RISE-based trajectory tracking control of an aerial manipulator under uncertainty. IEEE Control Systems Letters (L-CSS).

INTERNATIONAL CONFERENCES

Jeonghyun Byun¹, H. Jin Kim. Robust Control of the Aerial Manipulator with a Fixed End-effector Position. 2021 20th International Conference on Control, Automation and Systems (ICCAS). **Presented in Award Session**

Dongjae Lee¹, Inkyu Jang¹, **Jeonghyun Byun**, Hoseong Seo, H. Jin Kim. Real-Time Motion Planning of a Hydraulic Excavator using Trajectory Optimization and Model Predictive Control. 2021 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS).

Jeonghyun Byun¹, Dongjae Lee, Hoseong Seo, Inkyu Jang, Jeongjun Choi, H. Jin Kim. Stability and Robustness Analysis of Plug-Pulling using an Aerial Manipulator. 2021 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS).

Jeonghyun Byun¹, Dongjae Lee, H. Jin Kim, Hyeonbeom Lee. On-line Parameter Estimation of a Hexacopter Equipped with 2-DOF Robotic Arm against Disturbance. 2020 20th International Conference on Control, Automation and Systems (ICCAS).

DOMESTIC JOURNALS

DOMESTIC CONFERENCES

Honors

AWARDS

- 2022.11 **Incentive Award, Aerospace Paper Award**, Korea Aerospace Industries, LTD.
- 2020.02 **Award Certificate**, Department of Aerospace Engineering, Seoul National University
- 2020.02 **Summa Cum Laude**, Seoul National University
- 2018.09 **Honorable Mention, 7th SNU Creative Design Fair**, College of Engineering, Seoul National University
- 2017.09 **Honorable Mention, 6th SNU Creative Design Fair**, College of Engineering, Seoul National University

FELLOWSHIPS

- 2021.11 –
2022.02 **BK21 Excellent Research Talent Fellowship**, BrainKorea21PLUS
- 2020.03 –
2020.08 **BK21 PLUS Doctoral Fellowship**, BrainKorea21PLUS
- 2019.03 –
2020.02 **Eminence scholarship**, Seoul National University
- 2018.11 **KAI-KSAS Scholarship**, Korean Aerospace Industry & Korean Society for Aeronautical and Space Sciences
- 2018.03 –
2019.02 **Sinyang Cultural Foundation Scholarship**, Sinyang Cultural Foundation
- 2017.03 –
2018.02 **Eminence scholarship**, Seoul National University
- 2016.09 –
2017.02 **Merit Based scholarship**, Seoul National University

Teaching Experience

- 2021.03 -
2021.06 **Tutor, Engineering Maths 1, Seoul National University**, Solved some difficult problem sets
- 2020.09 -
2020.12 **Teaching Assistant, Introductory Engineering Probability, Seoul National University**, Developed scoring criteria for the exams
- 2020.09 -
2020.12 **Tutor, Physics 2, Seoul National University**, Solved some difficult problem sets
- 2020.03 -
2020.06 **Teaching Assistant, Engineering Maths 1, Seoul National University**, Developed scoring criteria for the exams
- 2017.03 -
2018.06 **Tutor, Physics, Seoul National University**, Solved some difficult problem sets

Skills

Programming: C/C++, MATLAB

Language: Korean (native), English (proficient), French (elementary)

Tools: Git, ROS, Arduino, Fusion360, Onshape