

# Jeonghyun Byun

PHD STUDENT

Seoul National University, 1 Gwanak-ro, Gwanak-gu, Seoul, Republic of Korea, 08826

☎ +82 10-7748-7491 | ✉ quswjdgus97@snu.ac.kr | 🏠 jh-byun.github.io

## 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 Lee<sup>1</sup>, **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 Byun**<sup>1</sup>, 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 Lee<sup>1</sup>, Inkyu Jang<sup>1</sup>, **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 Byun**<sup>1</sup>, 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 Byun**<sup>1</sup>, 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

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

## Teaching Experience

---

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

## Skills

---

**Programming:** C/C++, MATLAB

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

**Tools:** Git, ROS, Arduino, Fusion360, Onshape