HEEKUN ROH

hroh@satreci.com / heekunroh@gmail.com
Associate GNC Systems Engineer at Satrec Initiative Co., Ltd., Republic of Korea

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST) Mar 2017 - Feb 2019
M. S. in Aerospace Engineering (Advisor: Prof. Min-Jea Tahk)

Thesis: *Impact Time and Angle Control Guidance for Homing Missiles Using Sequential Convex Programming*

Korea Advanced Institute of Science and Technology (KAIST) Mar 2013 - Feb 2017
B.S. in Aerospace Engineering
B.S. in Electrical Engineering (Double Major)

Korea Science Academy of KAIST Mar 2010 - Feb 2013

PROFESSIONAL EXPERIENCE

Satrec Initiative Feb 2019 - Present
Associate Engineer (Satellite Attitude Determination and Control)

RESEARCH EXPERIENCE

KAIST, Flight Dynamics and Control Lab (FDCL) Dec 2016 - Feb 2019

Fast Trajectory Optimization using Sequential Convex Methods

Optimal allocation of assets using mixed integer linear programming

FEATURED PUBLICATIONS

Journal Papers

[1] H. Roh, Y.J. Oh, M.J. Tahk, K.J. Kwon, and H.H. Kwon, "L1 Penalized Sequential Convex Programming for Fast Trajectory Optimization: With Application to Optimal Missile Guidance," *International Journal of Aeronautical and Space Sciences(IJASS)*, Vol. 21, pp. 493-503, Jun. 2020.

[2] H. Roh, Y.J. Oh, M.J.Tahk, and Y.R. Jung "Optimal Weapon-Target Assignment of Multiple Dissimilar Closed-In Weapon Systems Using Mixed Integer Linear Programming", Journal of Korean Society for Aeronautical and Space Sciences, Vol. 47, No. 11, pp.787-794, Nov. 2019.

International Conference Papers

[1] H. Roh, Y.J. Oh, M.J. Tahk, and C.H. Lee, "Fast Trajectory Optimization Using Sequential Convex Method for Guided Missiles," *The 5th CEAS Conference on Guidance, Navigation and Control (EuroGNC)*, Milano, Italy, Apr. 2019.

[2] H. Roh, M.H. Cho and M.J.Tahk, "Trajectory Optimization Using Cramer-Rao Lower Bound for Bearings-Only Target Tracking," *AIAA Scitech Forum 2018*, Kissimmee, Florida, USA, Jan. 2018.

FEATURED HONORS & AWARDS

Graduation with Highest Honors Feb 2017
Dean's List, College of Engineering Mar 2015

KAIST Presidential Fellowship Mar 2013 - Feb 2017

Boeing Scholarship Mar 2014 - Dec 2016

Cansat Competition Korea 2014, 2nd Place Aug 2014

Cansat Competition Korea 2012, 1st Place Aug 2012

LANGUAGE PROFICIENCY

Korean
Native

English
Full Professional Proficiency
(TOEFL 110, GRE V165/Q170/AW5.0, 2022)

French
Limited Working Proficiency
(DELF B2, 2016)