Search: Drones

List of Publications

2020
Conference and Workshop Papers

[C1] A Dai, S Papatheodorou, N Funk, D Tzoumanikas and S Leutenegger,
Fast frontier-based information-driven autonomous exploration with an MAV,

[C2] D Tzoumanikas, Q Yan and S Leutenegger,
Nonlinear mpc with motor failure identification and recovery for safe and aggressive multicopter flight,

[C3] D Tzoumanikas, F Graule, Q Yan, D Shah, M Popovic and S Leutenegger,
Aerial Manipulation Using Hybrid Force and Position NMPC Applied to Aerial Writing,
2020.

2019
Journal Articles

[J1] D Tzoumanikas, W Li, M Grimm, K Zhang, M Kovac and S Leutenegger,
Fully autonomous micro air vehicle flight and landing on a moving target using visual–inertial estimation and model-predictive control,

[J2] K Zhang, P Chermprayong, D Tzoumanikas, W Li, M Grimm, M Smentoch, S Leutenegger and M Kovac,
Bioinspired design of a landing system with soft shock absorbers for autonomous aerial robots,

2017
Journal Articles

[J1] P Oettershagen, A Melzer, T Mantel, K Rudin, T Stastny, B Wawrzacz, T Hinzmann, S Leutenegger, K Alexis and R Siegwart,
Design of small hand-launched solar-powered UAVs: From concept study to a multi-day world endurance record flight,

2015
Conference and Workshop Papers

[C1] P Oettershagen, A Melzer, T Mantel, K Rudin, R Lotz, D Siebenmann, S Leutenegger, K Alexis and R Siegwart,
A solar-powered hand-launchable UAV for low-altitude multi-day continuous flight,
2014
Conference and Workshop Papers

[C1] P. Oettershagen, A. Melzer, S. Leutenegger, K. Alexis and R. Siegwart,
Explicit model predictive control and l 1-navigation strategies for fixed-wing
uav path tracking,
22nd Mediterranean Conference on Control and Automation, 1159-1165, 2014.

[C2] S. Leutenegger, A. Melzer, K. Alexis and R. Siegwart,
Robust state estimation for small unmanned airplanes,
2014 IEEE Conference on Control Applications (CCA), 1003-1010, 2014.

PhDThesis

[PhD1] S. Leutenegger,
Unmanned solar airplanes: Design and algorithms for efficient and robust au-
tonomous operation,
ETH Zurich, 2014.

2013
Conference and Workshop Papers

[C1] J. Nikolic, M. Burri, J. Rehder, S. Leutenegger, C. Huerzeler and R. Siegwart,
A UAV system for inspection of industrial facilities,