

The Department of Mechanical Engineering  
College of Engineering and Applied Sciences  
Stony Brook University

## Mechanical Engineering Seminar



**Giuseppe Loianno, PhD**  
Assistant Professor, New York University

**Integrated Perception, Learning, and Control for Super Autonomous Robots**  
Friday, April 14th, 2023 at 11:00 AM, Room 173 Light Engineering Building

### Abstract

Autonomous robots such as aerial and ground vehicles are starting to play a major role in several critical tasks such as search and rescue, interaction with the environment, inspection, patrolling and monitoring. These tasks are generally time sensitive and require robots to be Super Autonomous or USARC: Unmanned, Small, Agile, Resilient, and Collaborative in complex, cluttered, unknown, and dynamic environments. In this talk, I will present some recent research results on visual perception, learning, and control for future super autonomous vehicles.

### Biography

Giuseppe Loianno is an assistant professor at the New York University, USA and director of the Agile Robotics and Perception Lab (<https://wp.nyu.edu/arpl/>) working on autonomous robots. Prior to joining NYU, he was research scientist and team leader at the GRASP Lab at the University of Pennsylvania in Philadelphia, USA. Dr. Loianno has published more than 70 conference papers, journal papers, and book chapters. His research interests include visual perception, learning, and control for autonomous robots. He received the NSF CAREER Award in 2022 and DARPA Young Faculty Award in 2022. He is recipient of the IROS Toshio Fukuda Young Professional Award in 2022, Conference Editorial Board Best Associate Editor Award at ICRA 2022, Best Reviewer Award at ICRA 2016, and he was selected as Rising Star in AI from KAUST in 2023. He is also currently the co-chair of the IEEE RAS Technical Committee on Aerial Robotics and Unmanned Aerial Vehicles. He was the general chair of the IEEE International Symposium on Safety, Security and Rescue Robotics (SSRR) in 2021 as well as program chair in 2019, 2020, and 2022. His work has been featured in a large number of renowned international news and magazines.

