

The Field Robotics Center

Seminar Series

Monday, May 12 GHC 2109 Noon-1PM

Food and Drinks will be served



Daniel Maturana
PhD Student
Robotics Institute

Semantic Point Cloud Labeling for Aerial Vehicles

Abstract: Advanced capabilities for autonomous aerial vehicles require an understanding of the environment that goes beyond geometric characteristics. For example, an autonomous helicopter's planning system may want to treat buildings and foliage differently when generating flight trajectories, to give buildings more clearance; or it may want to treat rocks and grass differently when searching for landing sites, as it is acceptable to land on the latter but not the former. To advance towards this goal we present a system for online semantic labeling of streaming LiDAR point cloud data. We demonstrate the system on aerial LiDAR data collected as part of the Autonomous Aerial Cargo Utility System (AACUS) project.

Speaker Bio: Daniel Maturana is a PhD student in the Robotics Institute, advised by Sebastian Scherer. His research interests are in perception and learning and is currently focused on scene understanding for autonomous aerial vehicles. Prior to attending Carnegie Mellon, Daniel received a B.S. and M.S. degrees in Computer Engineering from the Pontifical Catholic University of Chile.



For further information please contact: Uland Wong,
uyw@andrew.cmu.edu. www.frc.ri.cmu.edu