

Field Robotics Center Seminar Series

Tuesday, Sept 21th, 2010 GHC 2109 11am - noon

Pizza will be served



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Self-Aware Helicopters: A New Era for Vertical Flight

Abstract

Helicopters are useful but dangerous. A helicopter flies close to things in routine execution of its varied missions. Sometimes things go wrong and a helicopter comes into contact with an object, usually with catastrophic results. Recently our group at CMU has demonstrated technology that gives the helicopter the gift of common sense: it knows about its environment and how to act in self-preserving ways. In this talk I will present some of the challenges of flying helicopters, both manned and unmanned, close to the ground. I will outline some of the technology and demonstrations that we have brought to a man-carrying UAV helicopter for the first time. Our technology will enable new missions and make existing helicopters safer.

Speaker Bio

Lyle specializes in perception systems for flying vehicles of all sizes. He has worked as a Research Engineer at the CMU Field Robotics Center for the past five years. He has also worked on perception and mobility systems for robots at JPL and IBM. At Caltech, he completed a B.S. in Engineering and Applied Science, with a minor in Controls and Dynamical Systems. He continues work at CMU with several perception-centric UAV projects

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