On-line Optimization-based Coordination of Multiple Unmanned Vehicles

Article

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Publication Information

Proceedings of the IEEE Networking, Sensing and Control March 2005, Pages 716-721

Abstract

The objective of this work is to investigate on-line optimization-based coordination strategies for robot teams to efficiently accomplish a mission (eg, reach a set of assigned targets) while avoiding collisions. The multi-robot coordination problem is addressed by solving an on-line receding-horizon mixed-integer program to find some suitable inputs for the vehicles. Simulations results verify the feasibility of our approach.

Link to the article