

16.31 Course Project Handout

As a part of the requirements, the students enrolled in 16.31 must complete a course project on a topic of their choosing. The purpose of the project is to enhance your understanding of the course material on a specific topic to a level that will allow you to do research. This exposure is either through the exploration of a part of the control literature or through the application of a particular control method on a real-world system.

Students enrolled in 16.30 are not required to complete a project.

Schedule of Events

- **Friday, October 24 at 5pm:** Project proposals are due.
 - Write a summary of the proposed project, roughly 300 words.
 - Upload your summary to the stellar website, following the “16.31 course project: Proposed project summary” assignment link.
 - It is likely that, through email, some iterating with the course staff will follow.
- **Friday, October 31 at 5pm:** Project approvals are due.
 - Your project must be approved by the course staff.
 - Upload the approved course project to the stellar website, following the “16.31 course project: Final project summary” assignment link.
- **Friday, December 5 at 5pm:** Project reports are due.
 - Write a project report using a computer. No hand written reports will be accepted. You can use Latex, M.S. Word, or any other word processor to write your project report.
 - If you have done work involving experiments with hardware, you may also record videos.
 - Upload your project report, along with any media (such as videos) you may have, to the stellar website, following the “16.31 course project: Project report” assignment link.

Project Options

The choice of your project can fall in one of the following categories:

1. Read and summarize 3 publications of interest that have appeared in control theory, guidance, navigation conferences (American Control Conference, IEEE Conference on Decision and Control, AIAA Guidance, Navigation and Control Conference). The publications must be related, that is, on the same topic. They must be recent, that is, published in 2005-2013.
2. Use the controller design techniques described in the class to design a control for a system related to your thesis research.
3. An idea of your own, preferably related to your own research to maximize the utility of this activity.