

GEORGIA INSTITUTE OF TECHNOLOGY
George W. Woodruff School of Mechanical Engineering

ME 6404 Advanced Control System Design and Implementation
Fall 2016

<http://singhose.marc.gatech.edu/courses/ME6404/index.html>

Lecture: M & W, 1:05 – 1:55 PM, MRDC 2405

Lab: F, 2:05-2:55 PM, GTMI (MaRC) 268

Lecturers: Professor William Singhose, GTMI 432, Singhose@gatech.edu
Dr. Khalid Sorensen, KhalidS@gatech.edu

TA: Arto Kivila, Arto@gatech.edu

Course Objectives

To learn advanced control and implementation techniques such as: optimal control, tracking control, repetitive control, adaptive control, and command generation. To work individually and in groups to realize simulated and actual working versions of advanced control techniques.

Textbook Command Generation for Dynamic Systems
<http://www.lulu.com/content/621219>

Computer MATLAB will be used as a supplementary tool

Course Requirements (100%)

- 1) Introductory Lab (5%)
- 2) Lab 2 (5%)
- 2) Two-week group projects (Labs 3-5) (10%)
- 3) Lab 6 (5%)
- 4) Quiz #1 (10%)
- 5) Final group project (20%)
- 6) Quiz #2 (20%)
- 7) Class Participation/Peer Reviews (5%)

Group Projects: All names must be on the report and each group member will receive the same grade. You will be randomly assigned to different groups throughout the term.