ENGR 870 – Robot Control

Course offering starting Fall 2024! A hands-on robotics course on applied robot control techniques!



The course will emphasize solving key areas of robot control for manipulators that can translate to the field of robotics and automation. The course topics include fundamentals of robotics, methods of robot control, feedback linearization, passivity-based control, Lyapunov design methods, robot dynamics, motion planning and computer vision servoing. You will gain both hands-on hardware and software experience. Robotics is fun, rewarding, and simply just way too cool to pass up ©!

Why interested students should take it?

- ENGR 870 will apply towards 3 units for the following programs.
 - BS Upper-Division Elective for ME, EE, and CompE programs.
 - MS EECS & ME Elective. Also, SF State Scholars in EE, CompE, and ME.
- Obtain new engineering skills and practical concepts to compete in acquiring Bay Area employment (100+ robotic & automation companies). Hands-on experience to apply robot theory into practice while working on actual robot hardware.

Prerequisite: Graduate engineering or CS student status. Undergraduate engineering students can enroll with having a grade B or better for the following course: ENGR 447. Undergrads would ask for instructor consent.

Lecture: Tuesday, Thursday 3:30 – 4:45 pm

Contact: Dr. Quintero (<u>qdavid@sfsu.edu</u>) for questions and to obtain permit code.