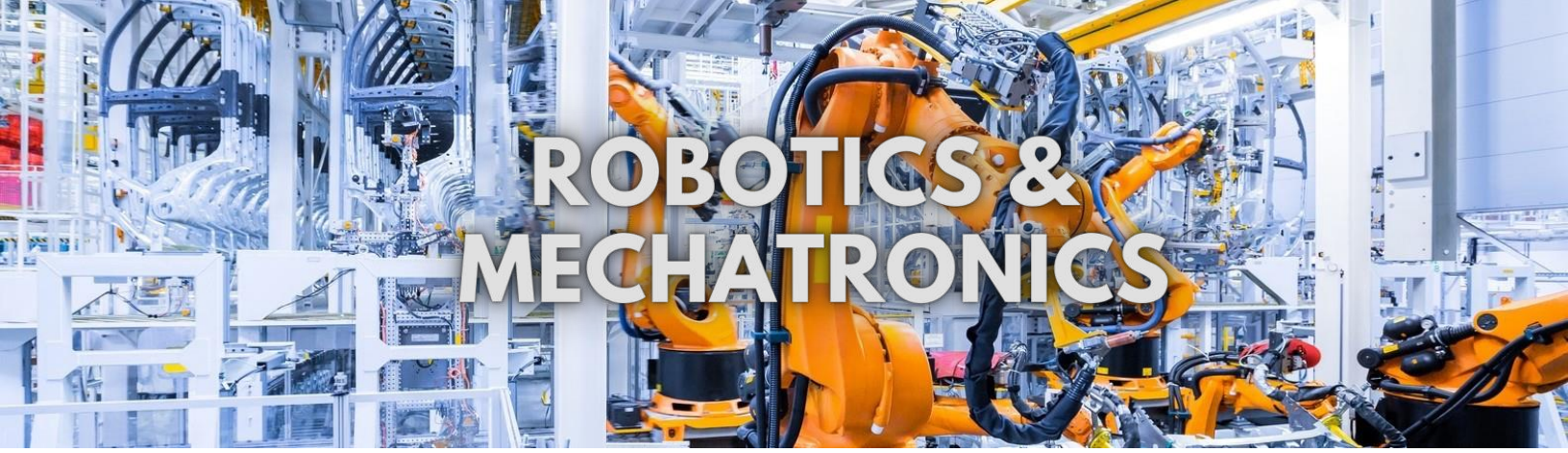

Track Description

Mechatronics is the synergistic integration of mechanical engineering with electronics and intelligent computer control in design and manufacturing of industrial products and processes. Also, Robotics is emerging to be a prime technology that can greatly advance a wide variety of industries that include healthcare (e.g. surgery and rehabilitation), defense, manufacturing, transportation (e.g. autonomous driving), energy (e.g. drilling and wind turbines), smart homes, space exploration, and hazardous material handling. Due to fundamental advances across multiple disciplines, robotics will be a huge growth area over the coming years, both academically and economically. Students completing the program wil be equipped with broad fundamental knowledge and practical skills important for careers in industry and for graduate studies.

Required Courses

Robotics-related (choose 1+)

ME 372J: Robotics & Automation
ME 350R: Robot Mechanism Design
ME 397*: Algorithms for Sensor-Based Robots

Mechatronics-related (choose 1+)

ME 348E/ME 392Q-6*: Advanced Mechatronics I
ME 348F/ME 392Q-9*: Advanced Mechatronics II
ME 360: Vehicle System Dynamics & Controls

Faculty Mentors

Farshid Alambeigi, farshid.alambeigi@austin.utexas.edu
Lei Zhou, lzhou@utexas.edu

Elective Courses (choose up to 2)

ME 364L: Automatic Control System Design
ME 397M*: Propulsion System Control
ME 355K: Engineering Vibrations
ME 365DM: Data Science for Engineers
ME 369P: Application Programming for Engineers
ME 377K: Projects in Mechanical Engineering
ASE 370C**: Feedback Control Systems
ECE 362K**: Introduction to Automatic Control
ECE 445L**: Embedded Systems Design Lab
CS 376**: Computer Vision
SDS 322**: Introduction to Scientific Programming

*This is a graduate course. To register for a graduate course, students need permission from the instructor, an undergraduate advisor, the graduate coordinator, and ESS.
**This course is offered by another department. Students need to check the pre-requisites of the courses and plan accordingly. Students may also need permission from the offering department to register for the course.

For course descriptions visit the University Catalog.

The University of Texas at Austin
Walker Department
of Mechanical Engineering
Cockrell School of Engineering