Class Schedule: 3 lecture, 1 2-hour lab

Description: Automation components and subsystems involving sensors, transistors, logic, amplifiers, software, microprocessors, PLCs, actuators, encoders, stages, motors, controllers and drives. Students design, simulate, build, test and document automation systems for Capstone projects.
Pre: EET 222 and EET 454

Texts: (some candidates)
Rockwell automation training material.

Plan:
Automation introduction.
Motors, drives, controllers, and encoders - AC, DC, stepper, linear.
LogixPro programming and simulation software.
Rockwell Automation PLC’s.
Rockwell digital and analog modules including analog control and resolution.
Sensors.
Communications, ControlLogix and DeviceNet.
Automation instrument control and data acquisition using LabVIEW.

Laboratory:
Weekly labs will support the lecture plan.