FACULTY MENTOR
Javidi, Tara

PROJECT TITLE
Real-time Object detection and Tracking for Self-driving Cars, Assistive Drones, and Smart Homes

PROJECT DESCRIPTION
Implementation of various data science algorithms for image and video analysis; developing flight control algorithms for drones; the goal is to achieve a sensing augmentation platform

INTERNS NEEDED
2-3 MS students, 1-2 BS students

PREREQUISITES
ECE 15 and ECE 109 mandatory; ECE 161A, ECE 154, ECE 158, or ECE 153 a plus

FACULTY MENTOR
Javidi, Tara

PROJECT TITLE
Drone formations for wireless connectivity

PROJECT DESCRIPTION
Drone formations can provide wireless connectivity in rescue and crisis scenarios as they are easy to navigate, fairly cheap, and are often equipped with radios; We would like to develop a network of drones to act as extremely small “cell towers” and access points.

INTERNS NEEDED
2-3 MS students, 1-2 BS students

PREREQUISITES
ECE 15 and ECE 109 mandatory; ECE 161A, ECE 154, ECE 158, or ECE 153 a plus

FACULTY MENTOR
Javidi, Tara

PROJECT TITLE
From Smart Cities to Connected Vehicles

PROJECT DESCRIPTION
Network of vehicles traveling in a city (from traditional buses and taxis to Uber and Lyft vehicles) can theoretically be orchestrated as a unified smart city wireless infrastructure. This infrastructure can provide connectivities for many IoT applications and consumer data needs. This project deals with practical implementation of such technology on mobile platforms.

INTERNS NEEDED
2-3 MS students, 1-2 BS students

PREREQUISITES
ECE 15 and ECE 109 mandatory; ECE 161A, ECE 154, ECE 158, or ECE 153 a plus