Cyber-Physical Systems
CS 898 AM
Spring 2016

Course Reference Number (CRN): 26155
Class Meeting Time: 8:00 a.m. – 9:15 Monday and Wednesday

Prerequisites: 766-Information Assurance and Security or CS767-Foundations of Network Security. If you do not meet these pre-requisites, seek the instructor's permission to register.

Course Description:
By tightly intertwining networks of physical and computational components, cyber physical systems enhance the capability, scalability, reliability, and sustainability of traditional infrastructures, such as power grids, transportation systems, and health care systems. However, due to their strong dependence on computers, they are vulnerable to attacks that exploit the coupling between cyber and physical components, and could cause severe damages to the public (e.g., power system black outs, railroad malfunctions, etc.). Moreover, the ubiquitous monitoring capabilities of cyber physical systems pose a serious threat to users' privacy. In this seminar course, we will primarily cover privacy and security aspects in smart grids, autonomous vehicles, and health care systems. Students will be required to read and review a paper from top journals and conferences at least twice per week, present a paper at least once during the semester, and submit a final research project. As an integral part of the course, students are expected to actively participate in class discussions.