EECS 598 –- Artificial Intelligence Application in Electrical Engineering

- **Instructor**: Dr. Jarir Chaar

- **Time and room**: MW 3–4:30, Room 2918 Cooley,

- **Description**: The core concepts of AI and their applicability in Electrical Engineering are covered. Topics include search techniques and heuristics, logic and reasoning, knowledge representation, advanced planning, decision making under uncertainty, and machine learning. Using a number of these techniques and open source (Python) AI APIs, students will work in teams to implement the control components of an electric system.

- **Textbook**: Artificial Intelligence: A Modern Approach (3rd Edition) by Stuart Russell and Peter Norvig. For study of recent advances, papers from major conferences and journals will be assigned

- **Assignments**: These will include problem sets and paper reviews. Programming assignments will require Python. For each paper, a student is expected to discuss, in <u>one</u> page, its significant ideas, how it relates to our course work, its strengths and weaknesses, and how it can be applied / improved.

- **Final project** : To be decided jointly with students. It includes a number of milestones and deliverables. It is focused on a topic of interest to a number of students that will collectively specify, build and test a controller that uses AI techniques. A 15–20 page write–up, running Python code, test cases covering 95% of the code, and test results are to be included in the final report.