Instructor – TBD

Description - Within the context of the industry defined project, students learn and apply the design process of Conceive, Design, Implement, and Operate. CP-I students will focus on Conceive and Design, while CPII students will focus on Implement and Operate.

Conceive: define the problem, its scope, customer needs, and possible solutions. Design: select the best solution, apply engineering analysis to predict its performance, create drawings / BOM, and specify components. Implement: build your design. Operate: test your design and report on results.

Pre-requisite – MEEG4131 CP1

Objectives - Develop the ability to apply engineering analysis to real-world designs. Develop a set of engineering documentation suitable for construction in CP-II. Work in a group to solve a problem and implement a solution. Develop professional oral and written communication skills. Develop a project budget and Gantt chart.

Grading - Participation / Initiative / Weekly Memo 30%
Final Design Review 40%
Final Design Report 30%

Each group is to submit a weekly status report (noon Monday) to industry contact and instructor providing a summary of progress including: (1) tasks completed the previous week (2) tasks to be done the next week (3) who will perform the tasks and (4) project status relative to Gantt chart (5) Questions for the sponsor. The first status report is due XXX and must include an updated Gantt chart for the CPII semester.

A Final design review will take place no later than XXX and consist of: brief review of the design process, a detailed description of concept including: assembly drawings (exploded view 3D model), detail drawings, bill of material, cost actual vs. plan, engineering analysis, predicted performance vs. actual performance, lessons learned and next steps.