ECE 414: Senior Design Project I

Spring 2010

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Office hours: Wednesday 3 – 4 pm, or by appointment
Class meetings: Wednesdays 1:00 – 1:55 p.m. ECEC-100
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Objective:

To provide ECE students a real-world based project development, design, implementation and management experience that is of interest to industry. Issues related to ethics and intellectual property will also be discussed.

Protocol:

1. In this course the students’ responsibility is to develop suitable project proposals. While the projects will be finalized in the following semester, there is important work to be done in the proposal stage, this semester. This includes defining the project objectives and scope, realistic evaluation of its feasibility and working out a detailed plan, including resources, materials, cost and schedule. The resources include student participants, with their knowledge and experience in areas relevant to the project, but may also include NJIT faculty, industrial partners and companies.

2. Students are expected to form project teams, of up to four members, that will jointly develop the project proposal and complete the project the following semester. Each team, as soon as it is formed, will submit a project summary form for approval. The form should provide the names of all team members, a title, and a brief description of the project. After approval of the project, the team is to begin working out details of their approach to realizing the project and to prepare a first version of the project proposal including the specific tasks to be performed by each group member.

3. This first version of the proposal will be reviewed and presented in class. Feedback and suggestions for preparing the final version of the proposal will be given to the team. Each project team will be required to make an oral presentation about their project at the end of the semester and to submit the final proposal document. Specific deadlines will be provided for the above steps.

4. Depending on the nature of the project, students will register for a Senior Design Project course, either ECE-416 or ECE-417, in the following semester. Usually students working on their own projects register in ECE-416 and students working with industry or faculty register in ECE-417 (Research Projects). Teams working with industry or faculty will be guided in the proposal development by a faculty member or a faculty advisor and an industry representative during this semester. Each team working on a Research Project must secure the signature of the faculty and/or industry advisors on the Registration Authorization Form for ECE 417 (Independent Study). Faculty advisors and industry mentors will meet and discuss student progress on a need basis during this and the next semester. We expect that industry participants may communicate directly with the team through face-face meetings, email communication, and/or a visit to the industry site, as needed.

5. At the end of the semester in which the project is completed, teams will present their work in the form of posters and a brief talk on an “ECE Senior Design Project Workshop” day. The students will be evaluated by the Senior Design Project Industry Advisory Committee.

Grading Policy:

Grading for this course will be based on the following evaluations:

Senior Design Project Proposal*: 60%
Senior Design Project Oral Presentations*: 20%
Attendance and timely delivery: 20%

* - Technical content and professional format will be evaluated.