Senior Design Project Sponsorship Program
Request for Proposals

Dept. of Electrical & Computer Engineering / FAMU-FSU College of Engineering

Background: Each year, the ECE department conducts an 8-month Senior Design Project course, typically including 50 or so electrical and computer engineering students from diverse backgrounds. We organize these students into typically 10 or so teams, each of which is charged with using professional engineering practices to complete a useful project for an outside client, or for a regional or national engineering competition. Many of the projects are multidisciplinary, and also include students exchanged from the Mechanical and Industrial Engineering departments, and (new this year) the occasional Computer Science student as well. The ECE department has an ongoing need for new clients/sponsors (whether industry or government/nonprofit) who have suitable projects for our students to work on, and/or who wish to donate funding (for parts/materials, etc.), equipment, or services that will help the teams complete their projects, whether it be a project for the client, or a sponsored entry in a competition.

Proposals from clients for new projects for this course should ideally meet all of the following criteria:

1. Each project should require the student team to perform *original* engineering work to design (or redesign) *and* prototype a novel and useful system, subsystem or product, including all steps from requirements analysis to detailed design – as opposed to just carrying out minor modifications to (or testing of) an already-existing system. (Projects involving new design work for manufacturability, or redesign to improve cost/performance/quality, etc., are acceptable.)

2. The scope/complexity of the project should be suitable for a team size of 4 to 7 students. Projects should ideally be multidisciplinary, requiring both electrical engineering work (e.g., involving power supplies, sensors, actuators) as well as computer engineering work (e.g., firmware programming, FPGA-based digital design), and even mechanical engineering work (of mobile armatures, vehicles, etc.). Developing PC or web-based software components is another new capability we are currently adding, with help from the computer science department.

3. The client's timeline/deadlines for the project should be compatible with the course schedule. By the end of Fall semester (December), all teams are supposed to have completed at least their conceptual and system-level design work, and to have obtained almost all required parts and materials for prototype construction, and to have begun building and testing subsystems of the prototype. Detailed design, full prototype construction and integration testing should be completed in the Spring, concluding with successful full prototype demonstrations and delivery of all design & prototype materials to the client in April.

4. The client/sponsor should be able to provide at least one technical advisor who is available and willing to meet with the project team several times each semester (at least once a month) to

discuss project needs, review the design work in progress, and suggest new ideas or approaches if needed. Advisors are invited/encouraged to attend several formal presentations delivered by the students (3 in the Fall and 2 in the Spring) and 2 prototype demonstrations in the Spring.

5. We request the client/sponsor to provide a donation of funding at a level that is expected to be sufficient to cover the cost of all components, materials, fabrication costs, and any new equipment or tools that may be required to develop, construct, and test at least one complete working prototype of the system or subsystem being designed. A donation size of $2-4K is typical, although some projects may require larger amounts. In-kind donations (of parts or materials that the client has on hand, or of in-house fabrication services) are also welcomed. If the project's goal is to participate in a competition or engineering challenge event, funding to support students' travel to the event is also requested.

6. Projects should ideally not involve significant intellectual property issues or extensive classified information. If there is a small amount of sensitive information that students working on the project need to see, suitable NDAs can be signed. However, students must be free to present all major technical aspects of their work in front of their review committee and other students at the College. If it is anticipated that the students will, in the course of the project, develop some patentable IP that will be of significant commercial value, the client is advised to approach the university's technology licensing office to discuss possible arrangements for partnering with the university on the application process for, and/or licensing of such patents.

Interested clients/sponsors should fill out the form on the following page, and email it to Dr. Michael Frank (Senior Design Coordinator) at mpf@eng.fsu.edu.

Donation checks can be made out to "FSU Foundation/Electrical & Computer Engineering" and mailed to Dept. of ECE, 2525 Pottsdamer St., Rm. 341, Tallhassee FL 32310.

If you need to make alternative payment arrangements, or have any other questions about this sponsorship program, please contact Dr. Frank at the above email.

ECE Department – Senior Design Course
Project Proposal / Sponsorship Agreement

1.   Project Title (tentative):   _____

2.   Name of Client Company/Organization: _____

3.   Primary point of contact at your organization in regards to this project:

         Name: _____   Title: _____

         Address: _____

         Phone: _____   Email: _____

4.   Has a suitable technical advisor(s)/liason(s) at your organization been identified who is/are authorized to spend time advising/evaluating the student team? If so, please give at least one such person's name(s) and phone/email (if different from above).

5.   Project background / summary of needs (1-2 paragraphs):

6.   Any relevant deadline(s):

7.   My organization commits to donate at least $_____ to help support this project.
         I understand that if the entire donation does not get used up on this particular project, the remaining amount may be used by the department to help support other Senior Design projects.

8.   Are there any anticipated issues with IP or confidential information? Please explain.

9.   Any other important comments / remarks:

This proposal/pledge has been approved by:

Name: _____   Date: _____

Title: _____