

Guidelines for Corporate Sponsorship

EE 4951 - Senior Design Projects

Department of Electrical and Computer Engineering

University of Minnesota

The Electrical and Computer Engineering (ECE) department at the University of Minnesota is very interested in partnering with companies to provide real-world corporate-sponsored senior design experiences for our students. The purpose of our EE 4951 Senior Design course is to provide students with a realistic design experience in which they integrate their disciplinary knowledge with design methodology to develop new devices, processes, or products. Industry sponsored senior design projects provide our students with some of the best design experiences. If your company is interested in exploring this opportunity, these guidelines will provide you with some information on the background, expectations, and procedures for such projects.

1. Get started by first contacting the EE 4951 Senior Design course coordinator for the coming semester to discuss your proposed project. If you do not know whom this person is, please contact Prof. William Robbins, ECE Associate Head, for this information (robbins@umn.edu, 612-626-6722). Items to discuss with the course coordinator includes:
 - a) Type and scope of your proposed project.
 - b) Appropriateness of your project as a senior design project. Keep in mind that your project should be suitable for a team of 5-6 engineers and should allow for development of well-defined requirements/specifications that can be verified in a demonstration at the end of the semester. The best projects have multiple paths for solution/implementation and are within the experience of a student trained in our electrical engineering and computer engineering programs (and for multidisciplinary teams, students from other engineering programs). It should not be a research project, but should provide the students with a solid design experience. While the students should not be expected to spend an unreasonable amount of time learning something entirely new if they are to successfully complete the project, the projects are expected to expand their knowledge base, including the acquisition of reasonable additional background material.
 - c) Desirability for an interdisciplinary project team that includes members from several areas. It is possible, and in some cases desirable, to have projects that require the expertise of team members from outside ECE. We work with other engineering programs at the UofMN to provide such multidisciplinary design team experiences.
 - d) Expectations with respect to student effort. This is a 14-15 week, 4-credit course, so the standard expectation is for about 12-16 hours of commitment per student per week, including working on the project, class time, and preparation of reports,

July 15, 2016

- presentations, etc. This translates into an expectation that each student will spend about 10 hours per week for 13-14 weeks working directly on implementing the project. Team size is typically 5-6 students, depending on the project.
- e) Issues with respect to foreign nationals, confidentiality, proprietary information, and intellectual property.
 - i) In general, any student in the class must be able to participate in the project and all meetings, tours, etc. connected with the project, irrespective of nationality.
 - ii) Team work-product cannot be kept completely confidential and must be reasonably accessible to the public through required team presentations and written reports. However, where needed, it is generally possible to make arrangements so that students can both meet the requirement of having something to show and report while avoiding complete public disclosure.
 - ii) Products, materials, and information that are not directly the work of the student teams, but only associated with their work, and information provided by the company to the student teams to further their efforts may be kept confidential to the company as required. The attached University of Minnesota approved Non-Disclosure Agreement is the only NDA or confidentiality agreement that can be used in such situations.
 - iii) Consistent with University of Minnesota Policy, intellectual property (IP) generated by a student in this course belongs to the student. The project sponsor may, at the start of the course, have the students on the team sign an agreement stipulating that the student-generated IP will be assigned to the company. The attached University of Minnesota approved Pre-Invention Assignment Agreement is the only such agreement that the students can be asked to sign. Should a provisional or full patent application be filed based on the student-generated IP, the students who contributed to the invention claimed in the application must be included as named inventors.
 - f) Availability of funds to help defray costs for the project. Typically, we request that companies cover the cost of materials and supplies needed by the students in implementing their project.
2. Provide a short senior design project proposal of your project to the course coordinator. The course coordinator will let you know the specific format your proposal should follow and the date by which your proposal will be needed. The audience for your project proposal is the students in the course who will make their choice among the projects available for the semester based on your proposal. So, put on your marketing hat and make your project sound exciting!

Your proposal should include a project title, contact information for the proposal submitter and for the company representative(s) who will serve as corporate project advisor(s), a brief background statement to provide some context, a clear discussion of the project goals, known user specifications, etc. The corporate project advisor(s) should be someone familiar with the project who has at least an undergraduate engineering degree, a few years of industrial experience, and enough time available to meet at least weekly with the students and participate in the review and evaluation of student presentations and reports.

3. A faculty member in the ECE Department will be selected to act as the on-site project mentor to the team of students assigned to your project. He or she will coordinate with you or your company's representative(s) to support the team, serving as the team's on-site mentor and in assisting the team as an additional resource. If you are already in contact with a faculty member in the ECE Department who you would like to fill this role, please let the course coordinator know and we will contact that faculty member to see if they are available.
4. Substantial involvement from the company side during the course of the project is strongly encouraged, but at a minimum should include the following by the corporate advisor(s):
 - a) Weekly meetings with the design team, typically for about 60 minutes on the University of Minnesota campus.
 - b) Reviewing the draft and final project design requirements/specifications. The final requirements/specifications document is due the third week of the semester.
 - c) Reviewing the written design proposal, due the fifth week of the semester.
 - d) Attending and helping evaluate your team's Mid-Project Design Review Presentation. This will be a 25-30 minute presentation scheduled around the sixth week of the semester.
 - e) Attending and helping evaluate your team's Product Launch Presentation. This will be a 30-45 minute presentation scheduled the last week of classes.
 - f) Attending and helping evaluate your team's Poster Presentation/Product Demonstration at our Senior Design Show. This is scheduled on Tuesday afternoon the last week of classes.
 - g) Reviewing the final written report, due during finals week.
 - h) Evaluating the contributions of individual team members at the end of the semester.

We look forward to working with you on developing and implementing a corporate sponsored senior design project. Please contact the EE 4951 Senior Design Coordinator if you have further questions.

One-Way Nondisclosure Agreement

Parties.

This Nondisclosure agreement (the "Agreement") is entered into by and between

[insert company name and address] (“disclosing party”) and

[insert name and address of person to whom company will disclose information]
 (“receiving party”) for the purpose of preventing the unauthorized disclosure of Confidential Information (as defined below).

Summary.

Disclosing party may disclose confidential and proprietary trade secret information to receiving party. The parties mutually agree to enter into a confidential relationship with respect to the disclosure of certain proprietary and confidential information (the "Confidential Information").

Definition of Confidential Information (Written or Oral).

For purposes of this Agreement, "Confidential Information" shall include all information or material that has or could have commercial value or other utility in the business in which disclosing party is engaged. In the event that Confidential Information is in written form, the disclosing party shall label or stamp the materials with the word "Confidential" or some similar warning. In the event that Confidential Material is transmitted orally, the disclosing party shall promptly provide a writing indicating that such oral communication constituted Confidential Information.

Exclusions from Confidential Information.

Receiving party's obligations under this Agreement shall not extend to information that is: (a) publicly known at the time of disclosure under this Agreement or subsequently becomes publicly known through no fault of the receiving party; (b) discovered or created by the receiving party prior to the time of disclosure by disclosing party; or (c) otherwise learned by the receiving party through legitimate means other than from the disclosing party or anyone connected with the disclosing party.

Obligations of Receiving Party.

The receiving party shall hold and maintain the Confidential Information of the other party in strictest confidence for the sole and exclusive benefit of the disclosing party. The receiving party shall carefully restrict access to any such Confidential Information to persons bound by this Agreement, only on a need-to-know basis. The receiving party shall not, without prior written approval of the disclosing party, use for the receiving party's own benefit, publish, copy, or otherwise disclose to others, or permit the use by others for their benefit or to the detriment of the disclosing party, any of the Confidential Information. The receiving party shall return to disclosing party any and all records,

notes, and other written, printed, or tangible materials in its possession pertaining to the Confidential Information immediately on the written request of disclosing party.

Time Periods.

The nondisclosure and confidentiality provisions of this Agreement shall survive the termination of any relationship between the disclosing party and the receiving party.

Miscellaneous.

Nothing contained in this Agreement shall be deemed to constitute either party a partner, joint venturer or employee of the other party for any purpose. This Agreement may not be amended except in a writing signed by both parties. If a court finds any provision of this Agreement invalid or unenforceable as applied to any circumstance, the remainder of this Agreement shall be interpreted so as best to effect the intent of the parties. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Minnesota. Any controversy or claim arising out of or relating to this Agreement, or the breach of this Agreement, shall be settled by arbitration in accordance with the rules of the American Arbitration Association and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction. The prevailing party shall have the right to collect from the other party its reasonable costs and attorneys fees incurred in enforcing this agreement. Any such arbitration hearing shall include a written transcript of the proceedings and a written explanation for any final determination. This Agreement expresses the complete understanding of the parties with respect to the subject matter and supersedes all prior proposals, agreements, representations and understandings. This Agreement and each party's obligations shall be binding on the representatives, assigns and successors of such party. Each party has signed this Agreement through its authorized representative.

DISCLOSING PARTY:

Signature

Disclosing Party's Name/title
Date: _____

RECEIVING PARTY:

Signature

Receiving Party's Name
Date: _____

Pre-Invention Assignment Agreement for "Design Projects" Class

Parties.

This agreement ("Agreement") effective _____
[insert month, day, year]
("Effective Date") is entered into by and between

[insert company name and address] ("Company") and

[insert name and address of student participant] ("Participant") for the purpose of
assigning ownership of inventions resulting from project work in the course.

Background

Participant is a student involved in a University of Minnesota course entitled "Design Projects". As part of the aforementioned course, Participant desires to work on a project consisting of one or more actual problems concerning design, manufacturing or other product development issues arising in connection with the business of Company. The time period of the project ("Project Period") is the length of the semester in which the course is taking place. All inventions, improvements, methods, devices, software, know-how, trade secrets, discoveries and/or other technology, whether patentable or copyrightable or not, which are conceived and/or reduced to practice by Participant individually or jointly with other project Participants as a result of the project shall be referred to as "Project Developments".

Invention rights

All Project Developments shall belong exclusively to Company. Participant agrees to assign (and hereby assigns) to Company all his/her rights, title and interest in Project Developments. Participant shall promptly and fully inform Company in writing of such Project Developments. Participant agrees to execute all papers and perform all other acts reasonably necessary to assist Company to perfect Company's rights in Project Developments, e.g., to review and sign patent applications and execute additional invention or patent assignment documents and to cooperate with copyright registrations and execute additional assignment documents for copyrightable Project Developments.

General provisions

The term of this Agreement shall run from Effective Date specified to the end of Project Period. The parties do not intend that any agency or partnership relationship be created between them by this Agreement. This Agreement may not be amended except in a writing signed by both parties. If a court finds any provision of this Agreement invalid or unenforceable as applied to any circumstance, the remainder of this Agreement shall be

interpreted so as best to effect the intent of the parties. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Minnesota. Any controversy or claim arising out of or relating to this Agreement, or the breach of this Agreement, shall be settled by arbitration in accordance with the rules of the American Arbitration Association and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction. The prevailing party shall have the right to collect from the other party its reasonable costs and attorneys fees incurred in enforcing this agreement. Any such arbitration hearing shall include a written transcript of the proceedings and a written explanation for any final determination. This Agreement expresses the complete understanding of the parties with respect to the subject matter and supersedes all prior proposals, agreements, representations and understandings. This Agreement and each party's obligations shall be binding on the representatives, assigns and successors of such party. Each party has signed this Agreement through its authorized representative.

COMPANY:

Signature

Name/title (print)

Date: _____

PARTICIPANT:

Signature

Name (print)

Date: _____