RE: Sponsoring a Fourth Year Engineering Team Design Project

Dear Potential Industry Sponsor,

I would like to personally thank you for considering the sponsorship of a fourth year Electrical and Software Engineering design project for students in the Schulich School of Engineering at the University of Calgary. Sponsoring 4th year design projects can be very rewarding for your organization. The potential benefits include:

- Giving back to the community and creating a strong corporate connection with University of Calgary's engineering graduates.

- Personalized professional development through mentoring a group of enthusiastic future engineers, which can be reported as Professional Development Hours (PDH) with APEGA.

- Getting help on reduced importance projects that have been lingering in your company.

- Gaining a new perspective on old issues by working with creative, energetic and well-trained student engineers following a systematic design process.

- Recruiting exposure with the graduating class of electrical and computer engineers.

A suitable project normally meets the following criteria:

- Projects must involve engineering design and analysis.

- Project should have a scope suitable for a group of 4-6 students working over an 8-month period in part-time manner. In exceptional cases, we may allow for one more team member if the need is justified.

- The expected number of hours spent on all aspects of this course is 260 hours of work per student over an 8-month period. This includes attending lectures and meetings, preparation, documentation and project management and technical work.

- Projects should not have urgent or strict deadlines.

- Projects should be flexible and allow for multiple solution ideas.

- Projects should be well defined with clear scope and objectives.

- Project outcomes should satisfy a demonstrable need.

- Projects leading to hardware/software prototypes are preferred. In exceptional cases and where enough justification is presented, projects without a prototype will also be considered as long as the design aspect is clear, and building a prototype is not possible within the prescribed timeline and budget.

- Projects should use known technology – there is not enough time in the course for large technological uncertainties.

In general, project completion timeline is as follows:

- September-December: analysis, scoping, high-level project design and preliminary design and implementation.

- January-March: Completion of the design, implementation and testing and technical demonstrations
- April: Showcasing and documentation of the final product.

The team will continuously update you in every stage to ensure that you are satisfied with the technical decisions made, and that the final product meets your requirements.

If you agree to sponsor a team of students, we expect you to:

- Provide a clear description of the project, the expected outcome and deliverables, and the type of support (financial/technical) that your company will provide. Also, assign a representative who will be liaising with the students and the course instructor. For this item, the course coordinator will provide a template. Please note that financial support from your side to make the project happen may not always be necessary.

- It is expected that the students be provided with a reasonable amount of advice and mentorship from your side over the term of the project to make the project a success. The minimum expectation is for the students to meet the industry representative at least two times during the fall semester and at least two times during the winter semester. The objective is to ensure the students' progress and accomplishments are satisfactory to the sponsor, and the final product meets the sponsor's expectation. Based on our past experience, there is a clear correlation between the quality of the projects and the level of engagement of the industry sponsor. Furthermore, interactions with the industry sponsor would provide students with the opportunity of working with fellow industry professionals and gain real-world problem-solving exposure and experience.

- The sponsor representative is expected to attend a few sessions for project presentations and evaluations at the university at various stages of project progress. We have been able to accommodate those cases where physical presence has not been possible through Skype tele-meetings.

- Sponsoring a project does not necessarily mean provision of financial support.

The following are contractual notes that apply to this sponsorship relation:

Contractual Notes	
Deliverables	While functional prototypes are sometimes developed through the completion of projects, the only deliverable that the Department of Electrical and Computer Engineering can guarantee is a final report drafted by the student group working on the project. Furthermore, we cannot guarantee that the report will contain significant findings.
Project Costs	The Department of Electrical and Computer Engineering will not provide any financial support for completing the project. Costs need to be discussed, decided upon, and borne by the student group and/or the industry sponsor.
Intellectual Property	It is the responsibility of the sponsor to take action to secure and protect any intellectual property that may arise. The university of Calgary has no claims on IP coming out of capstone projects. It is between the team and the sponsor to agree on the IP rights. Please see the included student-sponsor contract template.
Due Diligence	These projects are conducted by engineering students who have not yet been accredited with Professional Engineering status. Thus, the sponsor must perform due-diligence on any design or information that arises from the course before utilizing or implementing the design. Therefore, the University cannot take any responsibility for liability.

Mentorship	A company representative should meet with the student group at least three times: when the project is being scoped, towards the end of fall term when the high-level design is finalized, and at the end of the winter term for the final presentation or design review. However, there is a strong correlation between sponsor engagement and project outcomes. In addition to a representative who will be the liaison with the students and the course instructor, it is nice to have a champion within your company that is interested in the successful outcome of the project and can provide ongoing support and mentorship to the students.
Confidentiality	This course, the department and the University will not contract for confidentiality associated with the sponsorship of a project. As an educational institution, we need to have the flexibility to discuss the project with the students and faculty project advisors. Further, we do not have the control over our students that is seen within an employee/employer relationship, making it difficult to maintain confidentiality.
Educational Mission	In this course, the mission of the University is educational. While sponsors can derive great benefit from their involvement and sponsorship, ultimately the sponsor must be receptive to the course curriculum and support of the educational objectives.

Industry-sponsored projects are proposed in two manners. First, the students have approached the sponsor and they have agreed on a project. In that case, the students will need to submit an official project proposal to the course instructor by the prescribed deadline (usually the third week of September). The projects will be reviewed and official feedback for any necessary improvements will be provided then. It is expected that the submitted projects meet the criteria mentioned above.

Second, an industry member might have a project and wishes to present it to students. In that case, I am happy to provide further information/feedback by email or a phone call. The next step is to finalize the project proposal using the provided excel spreadsheet and email it to me. I will post the projects as soon as the course web page becomes available (usually around late July/early August). If any teams are interested, they will approach the sponsor. The sponsor may interview the interested teams and pick the one that best suits the project. After that, it is the team's responsibility to submit the official project proposal to the course web site towards by the prescribed deadline (usually the third week of September).

Please note that this coming academic year there is still slight chance that our academic activities be impacted by the uncertainties of the COVID-19 Pandemic. Access to labs and campus facilities, meeting in-person and other "normal" activities may be limited. Such limitations will likely impact the projects that have significant hardware components and that need to do their design implementation and testing at campus facilities. Please discuss mitigation strategies and a "plan B" when scoping the projects.

I have also included in this communication a template contact file that outlines the minimum mutual responsibilities of the team and the sponsor, and other important contractual points for your information before you commit to a project. Please review that and let me know if you have any questions.

Please do not hesitate to contact me by email at dwestwic@ucalgary.ca if you need further clarifications. I look forward to a rewarding relationship between your organization and our students over the course of this project.

Sincerely,
Dr. David Westwick