

# ELECTRICAL & COMPUTER ENGINEERING

## ENGINEERING CLINIC DESIGN & IMPACT STATEMENT

Student Name, ID and Major Project Manager's Name Project Title

Brief Description of the Project (100 words or less)

Please answer all of the following questions. In most cases, your answers can be just a few sentences, and you can use additional space and pages as you need. Completed form must be attached / submitted with your report. Part 1 – Engineering Design Process

What is the engineering design process you used? Briefly describe: i) problem definition and opportunities for advancing technology; ii) technical requirements; iii) timeline / tasks / deliverables; iv) trade-offs and alternatives that were considered, v) risks considered; vi) final design: how did you test, analyze, evaluate and verify your solution? Provide a brief overview here, and elaborate in detail in your report.

<u>What are the multiple realistic constraints in your project</u>: Constraints are related to – but different than – design specifications (already described above). These may include time, size, cost, power, computational power, local code, even a requirement to follow a particular standard. Every project must list multiple realistic constraints.

What engineering standards were applicable or did you use / follow? List and cite the standards you used. Every report must provide the citations for the applicable engineering standards (such as IEEE, ASME, etc.).



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#### Part 2 – Consideration of Impact Factors

All of the following questions must be answered. If a factor does not apply, make a clear case why not. What are the public health, safety and welfare factors considered and/or their impact in your work/project?

### What are the global, social and cultural factors considered, and/or their impact in your work/project?

What are the environmental factors considered, and/or their impact in your work/project?

What are the economic factors considered, and/or their impact in your work/project?

### Part 3 – Team Work, Professional Practice & Growth

Team Work: 1) What was your role in the project, and how did you contribute to the team (e.g., in terms of leadership, creating a collaborative and inclusive environment, establishing goals, planning tasks, meeting objectives, etc.)

**Ethical considerations**: 1) Explain the ethical issues that may arise (or already did) in the context of global, economic, environmental, and societal factors; and 2) how did you address them or how can they be addressed?

Professional growth & lifelong learning: What new knowledge and skills have you gained from this project?