## **Senior Projects**

## Fall 2023 Technical Writing Assignment

Each *individual* must write a short technical report on a topic related to your group's project. We expect reports to be approximately five double-spaced pages, including references. You should collaborate with your group members to make sure that there is no overlap in the content of your reports. If done well, you should be able to reuse much of this content in your group's end-of-semester and end-of-year reports, perhaps in a modified form, and incorporating any feedback. For example, each of these reports might become a section or subsection in your later reports.

Obviously, the topics will vary by group. Topics might be related to a field of engineering, math, or science that needs to be understood in order to implement or appreciate your group's project; it may be an in-depth explanation of a complex algorithm that needs to be implemented or used to achieve your goals; or it may be a detailed description of some related project that serves as an inspiration for, or is otherwise being compared to, your project. Of course, in order to do this writing, you need to research the topic and understand it in depth.

Note: Citations in this assignment are extremely important. All references should be listed at the end of the report, and citations to these references should appear throughout your report. Any fact that is not common knowledge and has come from another source needs to be cited, regardless of whether it is a direct quote. If an entire paragraph describes information that came from one source, you can put a single citation at the end of it. Each citation should appear after a space and before the end-of-sentence punctuation (or sometimes it is OK to have a citation in the middle of a sentence directly after the piece of information you are citing). References should be listed at the end of the report in alphabetical order, or according to the order in which they are first cited. Citations may either include the author and year, like this (John Do, 2006), this (John Do and John Smith, 2005), or this (John Do et al., 2002); or you may number the references and just include the number in brackets like this [5]. If you use the former approach (names and authors) and want to cite multiple sources in the same place, include the citations in the same set of parentheses separated by semicolons; if you use the latter approach (numbers in brackets), include each citation in a separate set of brackets like this [3], [7], [12]. Use IEEE conventions for your references; examples of formats for references can be found here: http://ieeeauthorcenter.ieee.org/wp-content/uploads/IEEE-Reference-Guide.pdf.

This technical writing assignment is due by midnight on the night of Friday, November 3. Each individual should e-mail your report to your advisor(s). Please include your name at the start of the document, and also give your report a title.