EEL 4914 SENIOR DESIGN I

Initial Project and Group Identification Document Divide and Conquer

Create one or more documents which have a total page count limited to 10 pages which contain the following content:

- 1. Project descriptive title, **group number**, group members with degree major identified, and identify any customers, sponsors or significant contributors.
- 2. Project narrative description with a statement of motivation for the project, a discussion of the project goals and objectives, and a discussion of the function of the project. Reference any input from customers or marketing analysis of competitive products or projects that has been used to identify project features. This section usually has no "numbers", the discussion is conceptual, but specific to the project. Use descriptions such as "light weight, portable, low cost, easy to use, high power, accurate, etc." when identifying project goals.
- 3. A list of requirements specifications for the project as a whole. Please identify project constraints and related standards that you are aware of at this time. These will be developed further in subsequent documentation. Use as many quantitative measures as possible. Answer the questions how many, how often, how high, how long, what values, when events occur, etc.
- 4. One or more project block diagrams in as much detail as possible. (see below) Include a project prototype illustration if appropriate. Sometimes a drawing will communicate more information about a specific implementation than just words. This is why patents use drawings as well as text as part of the legal description.
- 5. Estimated project budget and financing.
- 6. Initial project milestone for both semesters.
- 7. If appropriate, include a decision matrix which lists the projects under consideration versus any parameters that will help you pick the project. These might include, but are not limited to cost, sponsorship, familiarity with the technology, educational goals, and motivation.

Your initial project identification documentation should contain a detailed project block diagram. This may consist of either a single complete block diagram or a series of nested diagrams, each level containing additional detail. Separate block diagrams should be constructed for project software and project hardware.

The information provided for each block in the diagram should include:

- 1. Group member administratively responsible for the block.
- 2. Block name, which is descriptive of its function.
- 3. Block status: To be acquired meaning the block will be purchased or donated

Acquired - block has been donated or purchased

Research - block design approach is being investigated

Design - block is currently being designed

Prototype - block is currently being prototyped

Completed - block design is a finished prototype

- 4. Name each input and each output associated with each block.
- 5. Diagram Legend. The legend should expand all acronyms and describe all named entities in the block diagram by giving brief definitions.

Include any additional information that would increase the understanding of the block diagram. The use of identifier grouping and color may be helpful. Example: All of member 1's blocks may be drawn with red rectangles, all of member 2's blocks may be drawn with blue rectangles, etc.