

Suggested Senior Design Proposal Structure

ECE 4810 Electrical/Computer Senior Design I

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1. Project Overview
 - 1.1. Background and Description
 - 1.2. Need Statement
2. Project Specifications
 - 2.1. Physical Characteristics
 - 2.2. Functionality
 - 2.3. Applicable Standards
 - 2.4. Constraints
 - 2.4.1. Economic
 - 2.4.2. Health and Safety (**required**)
 - 2.4.3. Environmental and Sustainability
 - 2.4.4. Ethical
 - 2.4.5. Social
 - 2.4.6. Manufacturability
 - 2.4.7. Political
 - 2.5. Other
3. Project Feasibility
 - 3.1. Physical
 - 3.2. Economic
 - 3.3. Resources
4. Design
 - 4.1. Patent Search
 - 4.2. Concept
 - 4.3. Alternative Approaches
 - 4.4. Detailed Design
 - 4.4.1. Precedence Matrix
 - 4.4.2. Hardware Components
 - 4.4.3. Software Components
 - 4.4.4. Other Design Elements
5. Design Validation
 - 5.1. Models and Simulations
 - 5.2. Testing Procedures
6. Plan of Work
 - 6.1.1. Work Flow Diagram
 - 6.1.2. Critical Path Network
7. Project Deliverables
8. Additional Considerations
9. Conclusions
10. References