**Senior Design Presentation Template (Thirty Minutes w/50 +/- 5 Slides)
Dr. Kamal Sarkar
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Rev B**

1. **Opening Slide (Project Title, Team Members, Faculty Advisors, & Presentation Date)**
2. **Outline**
3. **Problem Formulation (Seven Minutes)**
	1. **Elevator Speech**
	2. **Market Research (Background Research, Market Size, etc.)**
	3. **Competitive Products**
	4. **Needs, Wants, & Constraints**
	5. **Goals & Objectives**
	6. **QFD (Quality Function Deployment or House of Quality)**
4. **Concept Selection (Eight Minutes)**
	1. **Methodology**
	2. **Concept Generation/Potential Solutions**
	3. **Functional Decomposition**
	4. **Sub-functions**
	5. **Design Constraints for Each Sub-function**
	6. **Concept Variants for Each Sub-function**
	7. **Selection Process by Pairing Method for Each Sub-function**
	8. **Final Selection of All Sub-components**
	9. **Proposed Solution**
	10. **Detailed Drawings with Dimensions, Units, & Labeling**
5. **Design Embodiment (Ten Minutes)**
	1. **Proposed Design Highlighting Critical Features and Components**
	2. **Engineering Analyses**
		1. Assumptions, Equations, Parameters of Interest, Boundary and Initial conditions
		2. Solution Strategies & Methods (Analytical, FEA, etc.)
		3. Solutions, Results, & Related Graphs
		4. Final Choices for Materials, Dimensions, & Pertinent Key Parameters
	3. **DfX**
		1. Design for Manufacturability
		2. Design for Safety
		3. Design for Environment, Reliability, Maintainability, etc.
	4. **Bill of Materials**
	5. **Engineering Economics**
		1. Cost for Prototype
		2. Production Cost
	6. **Manufacturing Process Details**
6. **Design Validation (Five Minutes)**
	1. **DFMEA**
	2. **Test Protocols**
7. **Design Documents**
	1. **Engineering Calculations**
	2. **Manufacturing Process**
	3. **Various Manuals (User’s, Maintenance, Operations, etc.)**
	4. **Test Protocols**
8. **Summary (Thirty Seconds)**
9. **References**
10. **Additional Supporting Slides (Critical for Q&A Section)**