PROJECT REQUIREMENTS SPECIFICATION

<TITLE OF THE PROJECT>

UE20CS390A – Capstone Project Phase – 1

Submitted by:

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Under the guidance of

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TABLE OF CONTENTS

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1. Introduction

[Introduce the document; describe the requirements of the product specified in this document.]

1.1. Project Scope

[Provide a brief description of the project specifying its purpose, benefits, objectives, and goals. Define the coverage and the limitations of the system.]

2. Product Perspective

[Describe the context and the origin of the product.]

2.1. Product Features

[Describe the major features the product contains or significant functions that it performs or allows the user to perform. Organize the functions in an understandable way.]

2.2. Operating Environment

[Explain the environment in which the system will operate. (Hardware platform, Operating system and versions, software components...)]

2.3. General Constraints, Assumptions and Dependencies

[Describe any issues that will minimize the choices available to the developers. These can include the following:

- Regulatory policies
- Hardware limitations. E.g. - signal timing requirements
- Limitations of simulation programs
- Interfaces to other applications
- Parallel operations
- Criticality of application
- Safety and security consideration]

2.4. Risks

[Describe the risks that involved during this phase. Risks may be related to the resource requirements or functionality of the proposed system.]

3. Functional Requirements

[Describe fundamental actions while processing inputs and generating the outputs.
This may include,

- Validity tests on inputs
- Sequence of operations
- Error handling and recovery
- Consequences of parameters
- Relationship of outputs to inputs.]

4. External Interface Requirements

4.1. User Interfaces

[Describe the logical characteristics of interface connecting the system and the users.
This may include,

- Required screen formats with GUI standards for styles.
- Screen layout and standard functions (e.g. help).
- Relative timing of inputs and outputs.
- Availability of some form of programmable function key.
- Error messages.]

4.2. Hardware Requirements

[Describe the logical and physical characteristics of interface linking the software product and the hardware components of the system. It includes the devices types that can be supported, their communications, and protocols.]

4.3. Software Requirements

[Describe the relationship between the product and the software components.
For each required product the following shall be provided,

- Name and Description
- Version / Release Number
- Databases
- Operating Systems
- Tools and libraries.
- Source (if any)]

4.4. Communication Interfaces

[Describe the various interfaces required for communication such as local area network protocols, serial ports, parallel ports, etc., and also line speed, buffer size and any other communication standards requirements if applicable.]

5. Non-Functional Requirements

5.1. Performance Requirement

[Describe how well the system performs particular functions under specific conditions. Brief on quality attributes (reliability, robustness, availability ...)]

5.2. Safety Requirements

[Identify the safety requirements that have to be addressed in the product. Define policies and safety measures that must be taken.]

5.3. Security Requirements

[Brief the requirements concerning to the security or privacy issues for use of the product and the data that is created by the product. Define identity authentication Requirements.]

6. Other Requirements

[Define any other requirements based on your project.]

Appendix A: Definitions, Acronyms and Abbreviations

[Provide definition of all terms, acronyms and abbreviations required for interpreting this Requirements Specification.]

Appendix B: References

[Provide the list of the documents or web addresses to which the Requirement Specification refers. It may include user interface style guides, standards, system requirements specification and use cases. The reference documents shall describe the title, version number, dates, authors and publishers, whatever is applicable.]