STEM Moiré GPA

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Contents

1	\mathbf{Ref}	erence Material	iii					
	1.1	Table of Units	iii					
	1.2	Table of Symbols	iii					
	1.3	Abbreviations and Acronyms	iii					
2	Intr	roduction	1					
	2.1	Purpose of Document	1					
	2.2	Scope of Requirements	1					
	2.3	Characteristics of Intended Reader	1					
	2.4	Organization of Document	1					
3	General System Description							
	3.1	System Context	1					
	3.2	User Characteristics	1					
	3.3	System Constraints	1					
4	Spe	ecific System Description	1					
	4.1	Problem Description	1					
		4.1.1 Terminology and Definitions	2					
		4.1.2 Physical System Description	2					
		4.1.3 Goal Statements	2					
	4.2	Solution Characteristics Specification	2					
		4.2.1 Assumptions	2					
		4.2.2 Theoretical Models	2					
		4.2.3 General Definitions	2					
		4.2.4 Data Definitions	2					
		4.2.5 Instance Models	2					
		4.2.6 Data Constraints	2					

	4.2.7 Properties of a Correct Solution	
5	Requirements5.1 Functional Requirements5.2 Nonfunctional Requirements	
6	Likely Changes	•
7	Traceability Matrices and Graphs	;
	Appendix 8.1 Symbolic Parameters	4

Table 1: Revision History

Date	Version	Notes
19/09/2017	1.0	First Draft

1 Reference Material

1.1 Table of Units

Throughout this document SI (Système Internationale d'Unités) is employed as the unit system. In addition to the basic units, several derived units are used as described below. For each unit, the symbol is given followed by a description of the unit and the SI name.

Symbol	Base quantity	Name SI
m	length	metre
m^{-1}	reciprocal meter	wave number

1.2 Table of Symbols

The table that follows summarizes the symbols used in this document along with their units. The symbols are listed in alphabetical order.

Symbol	Unit	Description
A_C	m^2	coil surface area
$A_{ m in}$	m^2	surface area over which heat is transferred in

1.3 Abbreviations and Acronyms

symbol	description
A	Assumption
DD	Data Definition
GD	General Definition
GS	Goal Statement
IM	Instance Model
LC	Likely Change
PS	Physical System Description
R	Requirement
SRS	Software Requirements Specification
STEM Moiré GPA	
T	Theoretical Model

2 Introduction

- 2.1 Purpose of Document
- 2.2 Scope of Requirements
- 2.3 Characteristics of Intended Reader
- 2.4 Organization of Document

3 General System Description

This section identifies the interfaces between the system and its environment, describes the user characteristics and lists the system constraints.

3.1 System Context

- User Responsibilities:
- STEM Moiré GPA Responsibilities:
 - Detect data type mismatch, such as a string of characters instead of a floating point number

3.2 User Characteristics

The end user of STEM Moiré GPA should have an understanding of undergraduate Level 1 Calculus and Physics.

3.3 System Constraints

4 Specific System Description

This section first presents the problem description, which gives a high-level view of the problem to be solved. This is followed by the solution characteristics specification, which presents the assumptions, theories, definitions and finally the instance models.

4.1 Problem Description

STEM Moiré GPA is

4.1.1 Terminology and Definitions

This subsection provides a list of terms that are used in the subsequent sections and their meaning, with the purpose of reducing ambiguity and making it easier to correctly understand the requirements:

•

4.1.2 Physical System Description

The physical system of STEM Moiré GPA, as shown in Figure ?, includes the following elements:

4.1.3 Goal Statements

Given the , the goal statements are:

4.2 Solution Characteristics Specification

- 4.2.1 Assumptions
- 4.2.2 Theoretical Models
- 4.2.3 General Definitions

Detailed derivation of simplified rate of change of temperature

- 4.2.4 Data Definitions
- 4.2.5 Instance Models

Derivation of ...

- 4.2.6 Data Constraints
- 4.2.7 Properties of a Correct Solution

A correct solution must exhibit

5 Requirements

This section provides the functional requirements, the business tasks that the software is expected to complete, and the nonfunctional requirements, the qualities that the software is expected to exhibit.

- 5.1 Functional Requirements
- 5.2 Nonfunctional Requirements
- 6 Likely Changes
- 7 Traceability Matrices and Graphs

- 8 Appendix
- 8.1 Symbolic Parameters