

<b>CHAPTER</b>	<b>CONTENTS</b>	<b>PAGENO</b>
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	
	1.1. OBJECTIVE	1
<b>CHAPTER 2</b>	<b>SYSTEM ANALYSIS</b>	
	2.1. INTRODUCTION	2
	2.2. EXISTING SYSTEM	3
	2.3. PROPOSED SYSTEM	4
	2.3.1. BENEFITS PROPOSED SYSTEM	6
	2.4. FEASIBILITY STUDY	7
<b>CHAPTER 3</b>	<b>SYSTEM SPECIFICATION</b>	
	3.1. SOFTWARE REQUIREMENTS	8
	3.2. HARDWARE REQUIREMENTS	9
<b>CHAPTER 4</b>	<b>SOFTWARE DESCRIPTION</b>	
	4.1. COMPONENTS	10
<b>CHAPTER 5</b>	<b>PROJECT DESCRIPTIONS</b>	
	5.1. PROBLEM DEFINITIONS	11
	5.2. SOFTWARE DEVELOPMENT LIFE CYCLE	12
	5.2.1. SDLC (SOFTWARE DEVELOPMENT LIFE CYCLE)	12
	5.2.2. SDLC PHASES	12
	5.3. PLATFORM KNOWLEDGE	13

5.3.1. WHAT IS DATA SCIENCE	13
5.3.2. IMPORTANCE OF DATA SCIENCE	13
5.4. MACHINE LEARNING	14
5.4.1. MACHINE LEARNING ALGORITHMS	14
5.5. LITERATURE SURVEY	16
5.6. METHODOLOGY	17
5.6.1. COLLECTION OF DATA	17
5.6.2. DATA EXPLORATION	18
5.6.3. DATA CLEANING	19
5.6.4. DATA PREPROCESSING	20
5.6.5. DATA VISUALIZATION	20
5.6.6. DATA MODELLING	21
5.7. EXPERIMENTAL ANALYSIS	23
5.8. CONCLUSIONS	25

## CHAPTER 6

## DATA SCIENCE

6.1. DATA SCIENCE	26
6.1.1. KEY COMPONENTS OF DATA SCIENCE	27
6.2. WHY DATA SCIENCE	28
6.3. FIELDS THAT USES DATA SCIENCE	30
6.4. IMPORTANCE OF DATA SCIENCE	31
6.5. PROS AND CONS OF DATA SCIENCE	32
6.5.1. MERITS OF DATA SCIENCE	32
6.5.2. DEMERITS OF DATA SCIENCE	33

<b>CHAPTER 7</b>	<b>MACHINE LEARNING WITH DATA SCIENCE</b>	
	7.1. INTRODUCTION	34
	7.2. HOW MACHINE LEARNING WORKS	36
	7.3. DATA SCIENCE VS MACHINE LEARNING	37
	7.3.1. DATA SCIENCE	37
	7.3.2. MACHINE LEARNING	37
	7.4. PROS AND CONS OF MACHINE LEARNING	38
	7.4.1. MERITS OF MACHINE LEARNING	38
	7.4.2. DEMERITS OF MACHINE LEARNING	39
<b>CHAPTER 8</b>	<b>PYTHON</b>	
	8.1. INTRODUCTION	40
	8.2. PYTHON FEATURES	41
	8.3. PYTHON ECOSYSTEM	42
	8.4. PYTHON APPLICATIONS	43
	8.5. CONCLUSION	44
<b>CHAPTER 9</b>	<b>ALGORITHM USED FOR MACHINE LEARNING</b>	
	9.1. OVERVIEW	45
	9.2. SUPERVISED LEARNING ALGORITHMS	46
	9.3. UNSUPERVISED LEARNING ALGORITHMS	47
	9.4. SEMI-SUPERVISED OF LEARNING ALGORITHMS	48
	9.5. REINFORCEMENT LEARNING ALGORITHMS	49
	9.6. INSEMBLING LEARNING ALGORITHMS	50

<b>CHAPTER 10</b>	<b>CODE PROCESS</b>	
	<b>10.1. PREPROCESS DATA</b>	<b>51</b>
	<b>10.2. EXPLORATORY DATA ANALYSIS</b>	<b>53</b>
	<b>10.3. FEATURE ENGINEERING</b>	<b>55</b>
<b>CHAPTER 11</b>	<b>CONCLUSION AND FUTURE WORK</b>	
	<b>11.1. CONCLUSION</b>	<b>56</b>
	<b>11.2. FUTURE ENHANCEMENT</b>	<b>57</b>
<b>CHAPTER 12</b>	<b>SOURCE CODE</b>	<b>58</b>
<b>CHAPTER 13</b>	<b>SCREENSHOTS</b>	
	<b>13.1. EXCEL SHEET</b>	<b>65</b>
	<b>13.2. CODE SNAP</b>	<b>66</b>
<b>CHAPTER 14</b>	<b>REFERENCE</b>	<b>69</b>