

ABSTRACT

The solar system and its planets have been a mystery since a long time. Most of the people around the globe have many misconceptions about the planets, it's satellites and their motions such as rotation about its axis and revolution around the sun. The motions of satellites around a planet have also been shrouded in a cloud of mystery for many people. A satellite is any object that is orbiting the earth, sun or other massive body. Satellites can be categorized as natural satellites or man-made satellites. The moon, the planets and comets are examples of natural satellites. Accompanying the orbit of natural satellites are a host of satellites launched from earth for purposes of communication, scientific research, weather forecasting, intelligence, etc.

This project aims to simulate the different motions of a satellite around a planet. It also provides top view and bottom view for better understanding of retrograde motion and angled motion along with normal motions of a satellite. This will help the common user to understand the complex science behind satellite motions.

TABLE OF CONTENTS

Acknowledgement	i
Abstract	ii
Table of contents	iii
List of Figures	v
1. Introduction	1
1.1 Problem Statement	1
1.2 Objectives	1
1.3 Scope	2
2. Literature Survey	3
2.1 History	3
2.2 Characteristics	4
2.3 Computer Graphics Library Organization	4
2.4 Graphics System and Functions	5
3. System Requirements	7
3.1 Hardware Requirement	7
3.2 Software Requirement	7
4. Design and Implementation	8
4.1 Header Files Used	8
4.2 OpenGL API's Used	8
4.3 User Defined Functions	11
5. Snapshots	13
5.1 Introduction Page	13

5.2 Help Page	13
5.3 About Page	14
5.4 Front View	14
5.5 Top View	15
5.6 Side View	15
5.7 Angular View	16
5.8 Retrograde Motion	16
Conclusion	17
Future Enhancement	18
Bibliography	19

LIST OF FIGURES

Fig no	Fig description	Page no
2.1	Library Organization	5
2.2	Graphics System as a Black Box	5
5.1	Introduction Page	13
5.2	Help Page	13
5.3	About Page	14
5.4	Front View	14
5.5	Top View	15
5.6	Side View	15
5.7	Angular Motion	16
5.8	Retrograde Motion	16