VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A Minor Project Report on

"SIMULATION OF MOTIONS OF A SATELLITE AROUND A PLANET"

Submitted in partial fulfillment for the Computer Graphics Laboratory with Mini Project [15CSL68] course of Sixth Semester of Bachelor of Engineering in Computer Science & Engineering during the academic year 2018-19.

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~~ CERTIFICATE ~~

Certified that the minor project work entitled "SIMULATION OF MOTIONS OF A SATELLITE AROUND A PLANET" is a bonafide work carried out by Pareekshith U S Katti (4MH16CS069) & Ponnanna M B (4MH16CS071) for the Computer Graphics Laboratory with Mini Project with course code 15CSL68 of Sixth Semester in Computer Science & Engineering under Visvesvaraya Technological University, Belagavi during academic year 2018-19.

It is certified that all corrections/suggestions indicated for Internal Assignment have been incorporated in the report. The report has been approved as it satisfies the course requirements.

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~~~ 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, its 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 project also tries to depict the motion of an artificial satellite as well. This will help the common user to understand the complex science behind satellite motions.

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