**DECLARATION**

I, SINDHU RAJ N student of Sixth Semester B.E in GOVERNMENT ENGINEERING COLLEGE, Hassan bearing USN 4GH21CS047, hereby declare that the project entitled “RAINBOW FORMATION DURING RAIN USING OPENCV” has been carried out by me under the supervision of our Guide, Dr.Vasantha Kumara M, B.E, M.Tech, Ph.D., Assistant Professor, Dept of CS&E, GEC Hassan, have submitted in partial fulfillment of the requirements for the award of the Sixth Semester of B.E in CS&E by the Visveswaraya Technological University, Belagavi during the academic year 2023-2024. This report has not been submitted to any other Organization/University for the award of degree or certificate.

**- SINDHU RAJ N(4GH21CS047)**

**I**

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I consider it a privilege to whole-heartedly express my gratitude and respect to each and every one who guided and helped us in the successful completion of this Project Report.

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Finally, it is my pleasure and happiness to the friendly co-operation showed by all the staff members of Computer Science Department, GECH.

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**ii**

**ABSTRACT**

The Bike Simulation project presents the development of a simple 2D graphics application using OpenGL and GLUT to simulate the movement of a bike across a screen. The primary objective is to create an interactive and visually engaging program that allows users to control the direction of the bike using keyboard inputs. The implementation includes essential components such as drawing the bike with distinct features (body,gear and wheels) and the road moves on. Key functions handle keyboard events to adjust the speed and direction of the bike,creating a seamless animation effect. This project serves as an educational tool for understanding basic graphics programming concepts and user input handling in OpenGL

**iii**

**TABLE OF CONTENTS**

| **Declaration** | **i** |
| --- | --- |
| **Acknowledgement** | **ii** |
| **Abstract** | **iii** |
| **Table of Contents** | **iv** |
| **List of figures** | **v** |
| **1. INTRODUCTION** | **1** |
| 1.1 OpenCV | 1 |
| 1.2 Key features of OpenCV | 1 |
| 1.3Application Of OpenCV | 2 |
| 1.4 Project Overview  1.5Scope of the Project  **2.LITERATURE SURVEY**  2.1 Introduction  2.2 Digital Imag Processing  2.3 OpenCV Library  2.3 User Interaction Designs  2.4 OpenGL and Freeglut Documentation | 2  2  **3**  3  3  3  3-4 |
| **3.REQUIREMENTS SPECIFICATION** | **5** |
| 3.1 Functional Requirements | 5 |
| 3.2 Non-Functional Requirements | 5-6 |
| 3.3 Software Requirements | 6 |
| 3.4 Hardware Requirements  3.5 System Architecture | 6-7 |
| **4. IMPLEMENTATION** | **11-12** |
| **5.CONCLUSION AND FUTURE WORK** | **15** |
| 5.1 Conclusion |  |
| 5.2 Future work  **6.APPENDICES**  6.1 Appendices A:Snapshots  **REFERENCES** | **16** |
|  |  |
|  |  |
| **iv** |  |
|  |  |

**LIST OF FIGURES**

| **FIGURE NO** | **FIGURE NAME** | **PAGENO** |
| --- | --- | --- |
| 6.1 | Key usage for simulation | 13 |
| 6.2 | Initial Snapshot of bike simulation | 13 |
| 6.3 | Bike Performing Wheeling | 14 |
| 6.4 | Gear changing of Bike | 14 |

**v**