

ABSTRACT

Human beings are utilizing wind energy from the early stages of human civilization for numerous processes like grinding of grains, pumping water, sailing, etc. With time, both human civilization and wind energy utilization are developing, and in this 21 century, wind energy is a popular source of Renewable Energy for electricity generation. The increased industrialization and modernization resulted in the increased demand for electricity. To address these ongoing requirements, more and more fossil fuel-based power plants are being installed all across the globe, which is generating a massive amount of carbon dioxide and other harmful gases responsible for greenhouse gas emissions and global warming. Moreover, these fossil fuels are nonrenewable, and hence depending solely on these fuels will create a scarcity of energy in the future. In such a situation, the world is focusing and exploring various forms of renewable energy sources, like solar photovoltaic, wind, geothermal, hydro, tidal, etc. and within a short time, wind energy has become a popular source of energy for generating electricity in an environment friendly method. In this Course Project, the theoretical study of Wind Energy and Wind Turbines is carried out along with the study of wind energy potentials in Bangladesh.

ACKNOWLEDGEMENT

While presenting this DBMS Mini Project on “**TITLE**”, We feel that it is our duty to acknowledge the help rendered to me by various persons.

Firstly we thank God for showering his blessings on me. We are grateful to my institution City Engineering College for providing as a congenial atmosphere to carry out the project successfully.

We would like to express our heartfelt gratitude to **Dr. S Karunakara**, Principal, CEC, Bangalore, for extending his support.

We would also like to express our heartfelt gratitude to **Dr. Sowmya Naik P T**, HOD, Computer Science and Engineering whose guidance and support was truly invaluable.

We are very grateful to our guide, **Asst.Prof. Ms. Shravya S**, and our co guide, **Asst.Prof. Mrs. Archana Bhat / Asst, Prof Mr. G A Girish**, Department of Computer Science, for their able guidance and valuable advice at every stage of our project which helped us in the successful completion of our project.

We would also have indebted to our Parent and Friends for their continued moral and material support throughout the course of project and helping us in finalize the presentation.

Our hearty thanks to all those who have contributed bits, bytes and words to accomplish this Project.

STUDENT NAME(USN)

STUDENT NAME(USN)

TABLE OF CONTENTS

1. INTRODUCTION	01
1.1 About Computer Graphics	01
1.2 History of Computer Graphics	02
1.3 About OpenGL.....	03
1.4 Applications of Computer Graphics.....	05
1.5 Built-In Functions	06
1.6 Mouse Functions	08
2. LITERATURE SURVEY	09
3. REQUIREMENT SPECIFICATION	11
3.1 Hardware Requirements	11
3.2 Software Requirements	11
4. DESIGN	12
4.1 FLOW CHART	12
4.2 PROPOSED SYSTEM.....	13
4.3 LOW LEVEL DESIGN	14
4.4 User Defined Functions	15
5. IMPLEMENTATION.....	16
5.1 Implementation of data structures concepts	16
5.2 OpenGL Primitives.....	17
5.3 Header Files	18
5.4 Main Function	18
6. SNAPSHOTS	21
APPENDIX	25
CONCLUSION AND FUTURE ENHANCEMENT	39
REFERENCE	40

LIST OF FIGURES

Figure No.	FIGURE NAME	Page No.
Figure 1.1	Library Organization	4
Figure 4.1	Flow chart	12
Figure 4.2	Design of the low level	14
Figure 6.1	Shows this is the first scene which appear when the program is executed	21
Figure 6.2	Shows the wind mill functions list on pressing right button on mouse	21
Figure 6.3	Wind mill is not blowing	22
Figure 6.4	Wind turbines are rotating in clockwise direction	22
Figure 6.5	Wind turbines are rotating in Anti-clockwise direction	23
Figure 6.6	Wind turbines are rotating more faster in clockwise direction	23
Figure 6.7	Wind turbines are rotating more faster in anticlockwise direction	24
Figure 6.8	Final view	24