VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"Jnana Sangama", Belagavi-560014, Karnataka

CGV MINI PROJECT REPORT
ON

"Moving light Simulation"

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE CGV LAB

BACHELOR OF ENGINEERING
IN
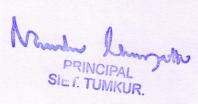## COMPUTER SCIENCE & ENGINEERING

Submitted By

MANOJ KUMAR PATIL(1SV20CS023)

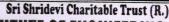### Under the guidance of
Mr.Renukaradhya .P.C B.E., M.Tech.,
Assistant Professor, Dept. of CSE.

PRINCIPAL
SIET. TUMKUR.

SHRIDEVI
EDUCATION

Department of Computer Science and Engineering
SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
(Affiliated To Visvesvaraya Technological University)
Sira Road, Tumakuru – 572106, Karnataka.
2021-22

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that, Computer Graphics and Visualization Mini-Project of entitled " Moving light Simulation" has been successfully carried out by MANOJ KUMAR PATIL(1SV20CS023), in partial fulfillment for the CGV Lab of **Bachelor of Engineering** in **Computer Science & Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year **2022-23.** It is certified that all the corrections/suggestions indicated for internal assessments have been incorporated in the report. The Mini- Project report has been approved as it certifies the academic requirements in respect of Mini-Project work prescribed for the Bachelor of Engineering Degree.

Signature of Guide

Mr. Renukaradhya P C B.E., M.Tech.,
Assistant Professor,
Dept. of CSE,
SIET, Tumakuru.

PRINCIPAL
SIET. TUMKUR.

----------------------------------- 6/7/23

Signature of H.O.D

Dr.Basavesha D M.Tech,phd.

Associate Professor & HOD
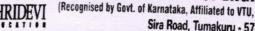Dept. of CSE,
SIET, Tumakuru.

Name of the Examiners

1 ....

2 GIRESH -L

Signature with date

....

18/7/23

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DECLARATION

I, Manoj Kumar Patil [1SV20CS023], student of VI semester **B.E** in Computer Science & Engineering, at Shridevi Institute of Engineering & Technology, Tumakuru, hereby declare that, the Mini-Project work entitled **"Moving light"**, embodies the report of our Mini-Project work carried out under the guidance of **Mr. Renukaradhya P C**, **Assistant Professor, Department of CSE, SIET,** Tumakuru as partial fulfillment of requirements for the CGV Lab in **Bachelor of Engineering in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi**, during the academic year **2021-22**. The Mini-Project has been approved as it satisfies the academic requirements in respect to the Mini-Project work.

Place: Tumakuru

Date: .04.07.23

Student Name & Signature

MANOJ KUMAR PATIL

(1SV20CS023)

PRINCIPAL
SIET. TUMKUR.

ABSTRACT:

This lighting model is build on the basis of phong model,Which supports three types of light material interactions namely Specular, ambient, diffuse. The ambient source color represents the interaction of a light source with surface whereas the specular source color is designed to produce the desired color of a specular highlights.

Lighting model is built by summing the contributions for all the light sources at each point we wish to light. For each light source, have to compute the amount of light reflected for each of the three terms in the illumination array. The contribution can be computed for each color source by adding the ambient, diffuse, specular components.

The position of light source and amount of ambient, diffuse, specular Light associated with the source. Both lighting should be enabled and particular source. When small amount of white light is needed, even when all light sources are turned off or disabled following code can be used.

```
Glfloat                    global_ambient[]={0.1,0.1,0.1,0.1};
glLightModelfv(GL_LIGHT_MODEL_AMBIENT,global_ambient);
```

Future scope:

Ø It is the basic model of Simple Move Light

Ø It will be used in the fields of animation.

Ø In future this program can be improved by using of new opengl functions.