

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



CGV MINI PROJECT REPORT ON

"Man Moving in the Rain"

*SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
MINI PROJECT*

**BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE & ENGINEERING**

Submitted By

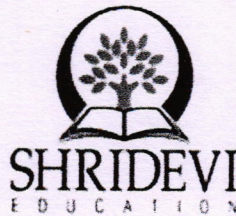
DHEERAJ KUMAR P (1SV20CS007)

Under the guidance of

Mr. RENUKARADHYA P.C

Assistant Professor, Dept. of CSE.

N. Srinivas
PRINCIPAL
SIET, TUMKUR.



Department of Computer Science and Engineering

SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
(Affiliated To Visvesvaraya Technological University)

Sira Road, Tumakuru – 572106, Karnataka.

2022-2023



Sri Shridevi Charitable Trust (R.)
SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Recognised by Govt. of Karnataka, Affiliated to VTU, Belagavi and Approved by AICTE, New Delhi)
Sira Road, Tumakuru - 572 106, Karnataka.



Phone: 0816-2212629 | Fax: 0816-2212628 | Email: info@shrideviengineering.org | Web: http://www.shrideviengineering.org

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that, Mini project report of entitled "Man Moving in the Rain" has been successfully carried out by DHEERAJ KUMAR P [1SV20CS007], in partial fulfillment for the Mini project report 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

Assistant Professor, Dept. of CSE,
SIET, Tumakuru.

PRINCIPAL
SIET, TUMKUR.

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.

Signature with date



Sri Shridevi Charitable Trust (R.)
SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Recognised by Govt. of Karnataka. Affiliated to VTU, Belagavi and Approved by AICTE, New Delhi)

Sira Road, Tumakuru - 572 106. Karnataka.

Phone: 0816-2212629 | Fax: 0816-2212628 | Email: info@shrideviengineering.org | Web: http://www.shrideviengineering.org



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DECLARATION

I, **DHEERAJ KUMAR P [1SV20CS007]**, student of V semester **B.E** in Computer Science & Engineering, at Shridevi Institute of Engineering & Technology, Tumakuru, hereby declare that, the Mini Project work entitled “**Man Moving in the Rain**”, 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 Internship Project report in **Bachelor of Engineering in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi**, during the academic year **2022-23**. The Internship-Project has been approved as it satisfies the academic requirements in respect to the Internship-Project work.

Place: Tumakuru

Nenukaradhy P.C
PRINCIPAL
SIET, TUMKUR.

Student Name & Signature

Date: 05/07/2023

DHEERAJ KUMAR P[1SV20CS007]

Dheeraj Kumar P

ABSTRACT

The "Man Moving in the Rain" project is an interactive computer graphics visualization developed using OpenGL. The project aims to create a visually appealing scene depicting a man walking in a rainy environment. The primary focus is on simulating realistic raindrops and animating the movement of the man.

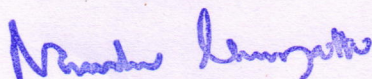
The scene consists of a 3D environment with a ground plane, a skybox, and a man model. The ground plane provides a textured surface that represents the wet ground, while the skybox surrounds the scene, creating the illusion of an outdoor environment. The man model is rigged and animated to walk along a predefined path.

The rain effect is achieved by simulating raindrops falling from the sky. Each raindrop is represented by a particle that falls vertically towards the ground. The particles are generated at random positions within the skybox and have random velocities to create a natural rainfall effect. The raindrops interact with the ground plane, creating splashes upon impact and leaving behind wet traces.

To enhance the visual quality of the scene, appropriate lighting techniques are implemented. The environment is lit using a combination of ambient, diffuse, and specular lighting models, providing realistic shading and highlighting effects on the man model and the ground surface.

User interaction is enabled to enhance the immersive experience. The user can control the movement of the man using keyboard inputs or mouse interactions, allowing them to explore the rainy environment from different perspectives.

Overall, the "Man Moving in the Rain" project combines various computer graphics techniques, including 3D modeling, animation, particle systems, lighting, and user interaction, to create a visually appealing and interactive scene that simulates a man moving in a realistic rainy environment.


PRINCIPAL
SIET. TUMKUR.