

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



CGV MINI PROJECT REPORT
ON

"Village Scenery"

*SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
CGV LAB*

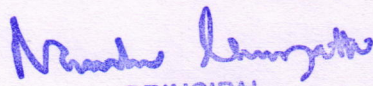
**BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE & ENGINEERING**

Submitted By

G Malingaraya [1SV20CS010]

Under the guidance of

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


PRINCIPAL
SIET, TUMKUR.



Department of Computer Science and Engineering

SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
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Sira Road, Tumakuru – 572106, Karnataka.

2021-22



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

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that, Computer Graphics and Visualization Mini-Project of entitled "Village Scenery" has been successfully carried out by G Malingaraya [1SV20CS010], 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.

Signature of H.O.D

Dr. Basavesha B.E., ME., MISTE
Associate Professor & HOD
Dept. of CSE,
SIET, Tumakuru.

Name of the Examiners

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Signature with date

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DECLARATION

I, G Malingaraya [1SV20CS010], 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 "**Village Scenery**", 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: 4/7/23

Malingaraya

Student Name & Signature

G Malingaraya[1SV20CS010]

Renukaradhya P.C
PRINCIPAL
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ABSTRACT:

To create a village scenery project using OpenGL, you can use various abstractions to represent different components of the scene. Here's a suggestion for the abstractions you can consider:

Scene: The top-level abstraction representing the entire village scenery. It contains all the elements and objects in the scene and manages their rendering and interactions.

Camera: A representation of the virtual camera in the scene. It defines the viewpoint and controls the perspective from which the scene is viewed. You can define its position, orientation, and other properties.

Terrain: An abstraction for the ground or landscape of the village. It can be a flat plane or a more complex mesh representing hills, mountains, or other topographical features. You can define its texture, color, and other properties.

Buildings: Abstractions for the buildings in the village. Each building can be represented as a 3D object with its own properties, such as position, size, color, and texture. You can define multiple building types and create instances of these abstractions to populate the village.

Trees and Vegetation: Abstractions for trees, plants, and other vegetation in the scene. Similar to buildings, each tree or plant can be represented as a 3D object with properties like position, size, color, and texture. You can create different types of trees and vegetation and scatter them across the village.

Skybox: An abstraction representing the sky and the background environment. It can be a textured cube or a spherical mesh that surrounds the village and provides the illusion of an expansive outdoor environment.

Lighting: Abstractions for different light sources in the scene, such as the sun, street lamps, or interior lights in buildings. Each light source can have properties like position, color, and intensity, affecting the overall lighting and shading of the scene.

Interactions: Abstractions for user interactions, such as mouse or keyboard inputs, to control the camera movement, select objects, or trigger actions in the scene. These abstractions handle input events and update the state of the scene accordingly.

N. Srinivas Kumar
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