VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-560014, Karnataka

CGV MINI PROJECT REPORT ON

"karanataka flag "

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE MINI PROJECT

BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE & ENGINEERING

Submitted By

H R ABHINANDAN (1SV20CS012)

Under the guidance of

Mr. RENUKARADHYA P.C

Assistant Professor, Dept. of CSE.

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SIET. TUMKUR.

SHRIDEVI
EDUCATION

Department of Computer Science and Engineering

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2022-2023

Sri Shridevi Charitable Trust (R.)
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that, Mini project report of entitled "karanataka flag" has been successfully carried out by H R ABHINANDAN [1SV20CS012], 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 certifiedthat 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.

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Signature of H.O.D

Dr. Basavesha D M.Tech., Phd,
Associate Professor & HOD Dept.OfCSE,
SIET, Tumakuru.

Name of the Examiners	Signature with date
1 ...GIRISH. L.....	.....
2.....Harish.....	..... 18/7

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DECLARATION

I, **H R ABHINANDAN [1SV20CS012]** , 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 **"karanataka flag"**, 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

Student Name & Signature

Date: 13/07/2023

H R Abhinandan [1SV20CS012]

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ABSTRACT

The Karnataka flag, an emblem of cultural and historical significance, holds a profound place in the identity of the state of Karnataka, India. This abstract explores the symbolic elements represented in the flag through a Computer Generated Visualization (CGV) approach. By employing CGV techniques, this study aims to provide a visual understanding of the flag's design elements and their associated meanings.

The Karnataka flag consists of two horizontal stripes of yellow and red, with the state emblem placed at the center. Through CGV, the vibrant colors and intricate details of the flag are brought to life, enabling a deeper exploration of their symbolism. The yellow stripe signifies peace, harmony, and knowledge, reflecting the intellectual and spiritual pursuits of the people of Karnataka. The red stripe, on the other hand, represents valor, courage, and sacrifice, highlighting the state's history of resilience and bravery.

The CGV visualization showcases the state emblem, positioned at the flag's center. The emblem portrays a traditional royal emblem, which comprises a white circular background surrounded by a red border.
Additionally, the CGV representation emphasizes the intricate details within the emblem, such as the intricate design elements surrounding the tigers, including the lotus flowers and the insignia of the state's prominent rivers.
By utilizing CGV techniques, this abstract presents a comprehensive visualization of the Karnataka flag, enabling a better understanding and appreciation of its symbolic essence.

Technology used:

OpenGL projects typically involve several technologies that work together to create a rich and immersive graphics experience. Some of the key technologies used in an OpenGL project includes :

1. OpenGL API: This is the core technology used in an OpenGLproject. It is a cross-platform graphics rendering API that allowsdevelopers to create three-dimensional graphics and animations.
2. Graphics hardware : OpenGL projects require dedicated graphics hardware to render high quality graphics at high frame rates. Graphics processing units (GPUs) are typically used for this purpose.
3. Programming language : Developers use programming languages such as C++,C ,Java to write the code that drives the OpenGL project.

Overall, OpenGL project involves a range of technologies that work together to create a rich and immersive graphics experience.

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