VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"Jnana Sangama", BELAGAVI-590018

A MINI PROJECT REPORT
on

PAINT PROGRAM (GRAPHICS EDITOR)

Submitted in partial fulfillment of the requirements
for the award of the degree of

Bachelor of Engineering
in
Computer Science & Engineering

By

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Certificate

Certified that the mini project entitled "**PAINT PROGRAM (GRAPHICS EDITOR)" is** carried out by Mr. **SUMIT KUMAR** USN [**1BG12CS101**], bona fide student of **B. N. M Institute of Technology** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science & Engineering** of the **Visvesvaraya Technological University**, Belgaum during the year 2015. The mini project report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for the said degree.

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ABSTRACT

Graphics provides one of the most natural means of communicating with a computer, since our highly developed 2D and 3D pattern recognition allow us to perceive and process pictorial data rapidly and efficiently. Interactive computer graphics is the most important means of producing the pictures since the invention of photography and television. It has the added advantage that with the computer we can make pictures not only of concrete real world objects but also of abstract such as survey results.

The project uses C/C++ and OpenGL library functions to create a mini project on paint program which works as a graphics editor.

The project aims at simulating the working of MS-Paint application, which comes pre-installed on Windows machines. It uses Glut library and application programming interfaces which allows users to interact effectively using mouse, keyboard, menus and GUI. Menus have been used to change form one object to another and keyboard functions are also used for interfacing. The concept of scaling, rotation and bilinear interpolation has been used implement this project idea. Various algorithms like Cohen-Sutherland, Liang-Barsky and Scan-line area filling algorithm have also been implemented to achieve required functionalities. The OpenGL graphics package aims at supporting the requirements of computer graphics package. It is a mini Graphics project. The editor has been implemented under the OpenGL environment using Microsoft Visual Studio Professional Edition 2008 which uses C and/or C++ as the language tool.

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