

GRAPHIC ERA UNIVERSITY, DEHRADUN

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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Report on Image Rotation using Open-cv

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-----**CONTENTS**-----

1.1 ABOUT PROJECT-----

1.2 MODULE-----

1.3 REFERENCE-----

1.1 About Project

This project is based on image rotation which is comprised of the way to rotate an image by a particular angle using OPEN-CV library.

The tools and technology used are C++ programming language, Visual Studio 2019, GCC compiler and inbuilt library: Open-cv.

1.2 Modules:

HEADER FILES : `<opencv2/opencv.hpp>` , `<iostream>` are the libraries used.

NAMESPACES : "using namespace cv" and "using namespace std" are the namespace being used in the program.

MAIN FUNCTION : `main()` function contains the in-built functions.

IN-BUILT FUNCTIONS :

- 1) `imread()` : is used to take the image as input from different sources.
- 2) `namedWindow()` : is used to create a new window for the image.
- 3) `imshow()` : is used to display the image in the created window.
- 4) `Point()` : is used to find the point along which image is to be rotated.

- 5) `getRotationMatrix2D()` : is used to rotate the image by an angle.
- 6) `warpAffine()` : is used for transformation.
- 7) `destroyWindow()` : is used to destroy the window.
- 8) `waitKey()` : is used for execution of program.

1.3 Reference:

1.3.1 Websites:

- www.codewithc++.com
- www.tutorialspoint.com