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**Department of Computer Science and Engineering**

B.E. CSE Program Accredited by NBA, New Delhi from 1-7-2018 to 30-6-2021

Report on Mini Project

Pixel Editor

**Course Code: 16CSE82**

**Course Name: Image Processing**

Semester: 6th Section: C

**Submitted To,**

**Dr. Aravinda C V**

**Submitted By:**

Name: Rahul D Shetty USN: 4NM16CS111

**Date of submission:**

**Signature of Course Instructor**



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CERTIFICATE

Certified that the Mini Project work entitled **Pixel Editor c**arried out by **Rahul D Shetty 4NM16CS111** bona fide students of **NMAM Institute of Technology**, **Nitte** has been carried out satisfactorily. The Mini Project report for the Subject **Image Processing**, has been prepared as per the prescribed format.

**Name & Signature of Guide Name & Signature of HOD**

Dr Aravinda C V Dr. K R Udaya Kumar Reddy

Assistant Professor Gd III Head of the Department

Department of CSE Department of CSE

NMAMIT, NITTE NMAMIT, NITTE

Name of the Student USN Signature Date

Rahul D Shetty 4NM16CS111

# **ACKNOWLEDGEMENT**

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Rahul D Shetty 4NM16CS111

**ABSTRACT**

Nowadays “Image Processing” normally used by wide range of applications and in different types of electronics like computers, digital cameras, mobile phones etc. The image properties can be changed with the least investment such as contrast enhancement, borders detection, intensity measurement and apply different mathematical functions to enhance the imagery. Even though these methods with dump, but understanding the fundamental values behind the effortless image processing routine is rare. The method of image processing is used to do some processes on a picture like an image enhancement or to remove some functional data from the image. Image processing is one kind of signal processing, where the input is a picture, as well as the output, are feature or characteristics allied with the image. The goal of this project is to build a multipurpose image editing tool which contains all the important image enhancement, morphological operations. The tool is mainly focused on faster image processing by making use of latest technological features provided by the programming language C#.

There are many modern-day tools available in market which does most of the operations that is included in this project, but most of them require a high demanding PC specification and use up the most of the memory while being executed. This application focuses to provide all the high level or complex operations at a real low cost in terms of space and time. The project makes use of various morphological transformations, image enhancement techniques, various filtering options, thresholding and much more. These operations are the basic for various image processing applications which is used in real time systems like CCTV face recognition where different noises can be reduced by applying particular filters. The project provides a way for users to switch between multiple images and work on them individually and independently.

**Title of the project**

1. **Introduction**
2. **Problem statement**
3. **Objectives**
4. **Related reading / Literature**
5. **Solution approach / methodology**
6. **Implementation details**
7. **Results**
8. **Observations / conclusion**
9. **References**

**(In addition to this, any other suitable headings may be added based on the need of the topic)**