BHARATIYA VIDYA BHAVAN’S

**SARDAR PATEL INSTITUTE OF TECHNOLOGY**

**MCA DEPARTMENT Academic Year 2016-17**

**Practical**

**Subject : IMAGE PROCESSING Class : SYMCA Sem : IV**

**LIST OF PRACTICAL**

**Unit I Implementation of Basic Intensity Transformations 4 Hrs.**

**A) negation of an image**

**B) Log Transformation of an image**

**C) Power Law of an image**

**AIM:** To learn to perform all the basic intensity transformations in an image using C++ .

**OBJECTIVE:** students will learn how to transform the image using file handling in C++ and see the effect of negation, log transformation and power law in an image and compare the difference between various transformation.

**Unit II Implementation of Piecewise-Linear Transformation Functions 4 Hrs.**

1. **Contrast stretching**
2. **Intensity level slicing**
3. **Bit plane slicing**

**AIM:** To learn to perform all the Piecewise-Linear Transformation Functions in an image using C++.

**OBJECTIVE:** students will learn how to transform the image using file handling in C++ and see the effect of applying of Piecewise-Linear Transformation Functions in an image and compare the difference between various transformations.

**Unit III Implementation of histogram equalization 4 Hrs.**

**AIM:** To learn to perform all histogram equalization in an image using C++.

**OBJECTIVE:** Students will learn to maximize the image contrast by applying a gray level transform which tries to flatten the resulting histogram. Students will learn to produce unrealistic effects in photographs.

**Unit IV Implementation of Smoothing Spatial Filters & Sharpening Filters 8 Hrs.**

**AIM:** To learn to perform all Smoothing Spatial Filters & Sharpening Filters in an image using C++.

**OBJECTIVE:** students will learn how to transform the image using different kinds of mask such as Robert mask, prewitt mask, sobel mask etc and see the difference of applying smoothing and sharpening filters on a given image.

**UNIT V Implementation of animation programs 10 Hrs.**

**a)To create objects and perform animation with timeline**

**b) To create objects and perform animation using keyboard arrows by coding**

**c) To create objects and perform animation using mouse click by coding**

**d) To create objects and perform rotation, horizontal motion ,vertical motion, fading in and fading out by coding.**

**e) To load and unload image using URL and library.**

**AIM:** To learn to perform various kinds of animation using adobe flash CS6.

**OBJECTIVE:** students will learn how to create objects in flash and to perform various kind of animation on that object such as rotation ,moving of objects etc.