MES COLLEGE OF ENGINEERING, KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA245 – MINI PROJECT

PRO FORMA FOR THE APPROVAL OF THE THIRD SEMESTER MINI PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Mini Project Proposal No : _____ *(Filled by the Department)*	Academic Year : 2021-2022 Year of Admission : 2020

1. Title of the Project : image super resolution
2.
3. _____
4. Name of the Guide : VASUDEVAN TV
5. Number of the Student: MES20MCA-2030
6. Student Details (in BLOCK LETTERS)

	Name	Roll Number	Signature
1.	Mubashira km	30	

Date:01/12/2021

Approval Status : Approved / Not Approved_

Signature of Committee Members

Comments of The Mini Project Guide Dated Signature

Initial Submission :

First Review :

Second Review :

Comments of The Project Coordinator Dated Signature

Initial

Submission:

First Review

Second Review

Final Comments
:

Dated Signature of HOD

Image Super Resolution

Mubashira km

Introduction:

High-resolution (HR) image reconstruction from single low-resolution (LR) image is one of the important vision applications. Despite numerous algorithms have been successfully proposed in recent years, efficient and robust single-image super-resolution (SR) reconstruction is still challenging by several factors, such as inherent ambiguous mapping between the HR-LR images, necessary huge exemplar images, and computational load. In this paper, we proposed a new learning-based method of single-image SR. Inspired by simple mapping functions method, a mapping matrix table of HR-LR feature patches is calculated in the training phase. Each atom of dictionary learned from LR feature patches is corresponding to a mapping matrix in the mapping matrix table. Combining this mapping table with sparse coding, high quality and HR images are reconstructed in reconstruction phase.

Objectives:

The central aim of Super-Resolution (SR) is to generate a higher resolution image from lower resolution images. ... The need for high resolution is common in computer vision applications for better performance in pattern recognition and analysis of images. High resolution is of importance in medical imaging for diagnosis.

Problem Definition:

Image Super Resolution refers to the task of enhancing the resolution of an image from low-resolution (LR) to high (HR). It is popularly used in the following applications: ... Media: super resolution can be used to reduce server costs, as media can be sent at a lower resolution and upscaled on the fly.

Basic functionalities:

The effectiveness and efficiency of this method is validated with experiments on the training datasets. Compared with state-of-art methods, jagged and blurred artifacts are depressed effectively and high reconstruction quality is acquired with less exemplar images.

Tools / Platform, Hardware and Software Requirements:

Python based Deep Learning libraries will be exploited for the development and experimentation of the project. Tools such as Anaconda Python, and python libraries will be utilized for this process.

Hardware Requirements:

I5 processor based computer,internet connection

Software Requirements:

Windows 8 or higher,python