

Literature Review

1. Application of cartoon like effects to actual images:

This paper represents different techniques of converting images to cartoon. Using any of the techniques mentioned, we can convert the captured image to cartoon. Other methods like photoshop, adobe illustrator, windows MAC, paint.net and much more can be used for a similar purpose. The paper proposes to create a website which consists of image upload functionality using which the user can upload his image. The uploaded image is then processed by server using Neural style transfer algorithm and the resulting image is presented to the user on the website, which then user can download and share.

2. Emojify – Create your own emoji with deep learning:

This paper researches on use of computer vision and deep learning to detect human emotions from images. This is a deep learning research paper that aims to classify human facial expressions to filter and map corresponding emojis or avatars. It uses CNN architecture and then by using OpenCV, it detects the faces from the webcam.

3. Cartooning an image using OpenCV and python:

This research paper elaborates on creating a cartoon effect image. There are 2 steps – first is to detect, blur and bold the edges of the actual RGB color image, and the second step is to smooth, quantize and the conversion of RGB image to grayscale. The results involved in combining the image and help achieve the desired result. An obvious disadvantage of smoothing is the fact that it does not only smooth noise, but also blurs important features such as edges and thus makes them harder to identify. Also, linear diffusion filtering dislocates edges when moving from finer to coarser scales.

4. Transformation of realistic images and videos into cartoon images and video using GAN:

The study aims to put forward a solution for transforming snapshots or videos of real-world into animated photos (cartoon images). The idea of paper is based on designated snapshots and videos which are converted to an art form such as painting. With the help of GAN (Generative Adversarial Network), it is possible to convert video as well to its cartooned

version and the development of the project shows that the proposed idea provides high quality cartooned images and videos.

Conclusion:

In this project with the help of CNN (Convolutional Neural Network), we were successful in identifying real time emotions of people from the video. Using OpenCV which is also known as Computer vision, we captured and processed images of people and converted it into simple cartoon images.

Future scope:

The project showed that image was successfully converted into a cartoon-style image and emotions of the live video were accurately detected. In future, we would like to focus more on generating a portrait defined HD image even though we used the loss function. We also plan to improve the accuracy of our emojifying model, which is at present around 86%. The model should be lightweight, so that it could be easily integrated with virtual meeting platforms and detect real-time emotions seamlessly.

References:

1. [135 Application of Cartoon like effects to Actual images \(ijtsrd.com\)](https://www.ijtsrd.com/ijtsrd/135/135-Application-of-Cartoon-like-effects-to-Actual-images-ijtsrd.com)
2. [Emojify - Create your own emoji with Deep Learning \(morioh.com\)](https://morioh.com/emojify/)
3. [\(PDF\) Cartooning an Image Using Opencv and Python | Projects Guide - Academia.edu](#)
4. [IRJET-V7I1376.pdf](#)