1. Name of the Project

Low Light Image Enhancement

1. Team Members

Gaurav Rathore (20EEACS036)

Gaurav Singh (20EEACS037)

Gautam Giri Goswami (20EEACS038)

Shubhangi Tyagi (20EEACS097)

1. Usage
2. User have to open the PairLie Software into VS-Code
3. Then user have to Run “app.py” file using the command “python ./app.py”
4. Then User have to “ctrl+click” on the IP address provided by the Output.
5. A Browser Tab will open and the user have to insert the Low Light image in the “Choose File”.
6. Then User have to Click on the Edit and output image will be shown.
7. Description

Low-light image enhancement is a digital technique employed to improve the quality and visibility of images captured in dimly lit environments. This process involves a series of steps aimed at enhancing various aspects of the image while minimizing unwanted artifacts. Initially, noise reduction algorithms are applied to reduce the graininess often present in low-light images. Subsequent adjustments are made to the brightness and contrast to ensure better visibility of details. Exposure correction helps in balancing the overall brightness levels, while detail enhancement techniques sharpen finer details without introducing artifacts. Color correction ensures accurate representation of colors, addressing any dullness or distortion caused by low light. Dynamic range expansion expands the range of tones captured, preserving details in both shadows and highlights. Additionally, artifact removal techniques eliminate any unwanted distortions introduced during the enhancement process. Through adaptive processing, algorithms tailor their parameters to the specific characteristics of each image, resulting in more effective enhancement across a variety of low-light scenarios. Overall, low-light image enhancement aims to produce clear, detailed, and visually appealing images that accurately depict the original scene, even in challenging lighting conditions.