



CHRIST
(DEEMED TO BE UNIVERSITY)
DELHI - NCR, INDIA

Computer Vision

MCA-574

Assignment – 01

BY

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SUBMITTED TO

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Code : --

```
# Importing OpenCV library
import cv2

# Load an image from file
image = cv2.imread('pika wallpaper.webp')

output_image_path = 'gray_pika_wallpaper.png' # Path to save grayscale image

# Check if the image loaded successfully
if image is None:
    print("Error: Could not open or find the image.")
else:
    # Convert the image to grayscale
    gray_image = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)

    # Save the grayscale image
    cv2.imwrite(output_image_path, gray_image)
    print(f"Grayscale image saved as {output_image_path}")

    # Resize images for better display if too large
    max_width = 800
    scale = 1.0
    if image.shape[1] > max_width:
        scale = max_width / image.shape[1]
        image_resized = cv2.resize(image, (int(image.shape[1]*scale),
int(image.shape[0]*scale)))
        gray_resized = cv2.resize(gray_image, (int(gray_image.shape[1]*scale),
int(gray_image.shape[0]*scale)))
    else:
        image_resized = image
        gray_resized = gray_image

    # Display the original and grayscale images (resized)
    cv2.imshow('Original Image (Resized)', image_resized)
    cv2.imshow('Grayscale Image (Resized)', gray_resized)

    # Wait indefinitely for a key press
    cv2.waitKey(0)

    # Destroy all windows after key press
    cv2.destroyAllWindows()
```

Output :

Original Image :



Gray Scale Image :

