Task

On

Live Sketch using webcam

**Course**: Artificial Intelligence

(Machine Learning & Deep Learning)

Name: Abbas Shafi

Father Name: Dr Muhammad Shafi

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Submitted to: Sir Syed Nazir Afridi



National Vocational & Technical Training Commission

National Center For Big Data & Cloud Computing

University of Engineering & Technology

Peshawar

# [ ]:

**0.1 Mini Project # 1 - Live Sketch Using Webcam**

# [ ]:

**import cv2**

**import numpy as np**

# Our sketch generating function

**def** sketch(image):

# Convert image to grayscale

img\_gray = cv2.cvtColor(image, cv2.COLOR\_BGR2GRAY)

# Clean up image using Guassian Blur #it smoothen and clean the noise

img\_gray\_blur = cv2.GaussianBlur(img\_gray, (5,5), 0)

# Extract edges

canny\_edges = cv2.Canny(img\_gray\_blur, 10, 70)

# Do an invert binarize the image

ret, mask = cv2.threshold(canny\_edges, 70, 255, cv2.THRESH\_BINARY\_INV)

**return** mask

# Initialize webcam, cap is the object provided by VideoCapture # It contains a boolean indicating if it was sucessful (ret)

# It also contains the images collected from the webcam (frame)

cap = cv2.VideoCapture(0)

**while True**:

ret, frame = cap.read()

cv2.imshow('Our Live Sketcher', sketch(frame))

**if** cv2.waitKey(1) == 13: *#13 is the Enter Key*

**break**

*# Release camera and close windows* cap.release() cv2.destroyAllWindows()

1