

Train CNN Model On IBM

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Team ID	PNT2022TMID14822
Project Name	Real-Time Communication System Powered by AI for Specially Abled
Maximum Marks	2 Marks

```
import cv2                #importing open.cv Library to open camera and take the video
import numpy as np        # to convert image to array and expand dimensions from
tensorflow.keras.models import load_model      # to Load the saved model from
tensorflow.keras.preprocessing import image    # to preprocess the imagemodel
load_model("dataset.h5")      # we are loading the saved model
video = cv2.VideoCapture(0)    # two parameters 1, bool 0 or 1
index=['A','B','C','D','E','F','G','H','I']    #frameindex= ["A","B","C","D","E","F","G","H","I"]
from playsound import playsound
while(1):
    success,frame = video.read()
cv2.imwrite("image.jpg",frame)    img =
image.load_img("image.jpg" ,target_size = (64,64))    x=
image.img_to_array(img)    x = np.expand_dims (x,axis = 0)
pred = np.argmax(model.predict(x),axis=1)
    p = index [pred[0]]
print("predicted letter is: "+ str(p))
    #playSound("letter"+str(str(index [p])+"is detected"))
    cv2.putText (frame,"predicted letter is "+str(p), (100, 100), cv2. FONT_HERSHEY_SIMPLEX,
```

```
1,(0,0,0), 4)  
cv2.imshow("showcasewindow", frame)  
if cv2.waitKey(1) & 0xFF == ord('a'):  
    break  
video.release() cv2.destroyAllWindows()
```