

Software code :

```
import cv2, time
from datetime import datetime
import argparse
import os

face_cascade=cv2.CascadeClassifier("cctv2.xml")

video = cv2.VideoCapture(0)

while True:
    check,frame=video.read()
    if frame is not None:
        gray=cv2.cvtColor(frame,cv2.COLOR_BGR2GRAY)
        faces =
face_cascade.detectMultiScale(gray,scaleFactor=1.1,minNeighbors=10)
        for x,y,w,h in faces:
            img=cv2.rectangle(frame,(x,y),(x+w,y+h),(0,255,0),3)
            exact_time=datetime.now().strftime('%Y-%b-%d-%H-%S-%f')
            cv2.imwrite("face detected"+str(exact_time)+".jpg",img)

            cv2.imshow("home surv",frame)
            key=cv2.waitKey(1)

            if key==ord('q'):
                ap=argparse.ArgumentParser()

ap.add_argument("-ext","--extension",required=False,default='jpg')

ap.add_argument("-o","--output",required=False,default='output.mp4')
        args=vars(ap.parse_args())

        dir_path='.'
        ext=args['extension']
        output=args['output']

        images=[]
```

```
for f in os.listdir(dir_path):
    if f.endswith(ext):
        images.append(f)

image_path=os.path.join(dir_path,images[0])
frame=cv2.imread(image_path)
height,width,channels=frame.shape

fourcc=cv2.VideoWriter_fourcc(*'mp4v')
out=cv2.VideoWriter(output,fourcc,5.0,(width,height))

for image in images:
    image_path=os.path.join(dir_path,image)
    frame=cv2.imread(image_path)
    out.write(frame)

break

video.release()
cv2.destroyAllWindows
```

OUTPUT :

