#LetsGrowMore Nov2021 internship #Task2 : Image to Pencil Sketch with Python Level : Beginner Language : Python Environment :jupyter notebook Task description : We need to read the image in RBG format and then convert it to a grayscale image. This will turn an image into a classic black and white photo. Then the next thing to do is invert the grayscale image also called negative image, this will be our inverted grayscale image. Inversion can be used to enhance details. Then we can finally create the pencil sketch by mixing the grayscale image with the inverted blurry image.

In [10]:
```python
import matplotlib.pyplot as plt
import cv2
from PIL import Image
from IPython.display import display
```

In [15]:
```python
# in this we read image from our directory and show on notebook via matplolib
img="C:/Users/KORRA SRINU/Desktop/letsgrowmore/vce.jpg"
ri=cv2.imread(img)
display(Image.fromarray(ri))
```


After reading the image, we will create a new image by converting the original image to greyscale.

In [17]:
```python
img_gray=cv2.cvtColor(ri,cv2.COLOR_BGR2GRAY)
display(Image.fromarray(img_gray))
```
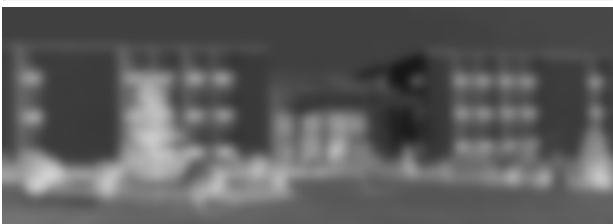

next step is to invert the new grayscale image.

In [18]:
```python
img_invert=cv2.bitwise_not(img_gray)
display(Image.fromarray(img_invert))
```


The next step in the process is to blur the image by using the Gaussian Function in OpenCV.

In [19]:
```python
img_smoothing=cv2.GaussianBlur(img_invert,(21,21),sigmaX=0,sigmaY=0)
display(Image.fromarray(img_smoothing))
```


The final step is to invert the blurred image, then we can easily convert the image into a pencil sketch.

In [20]:
```python
def vce(x,y):
```

```
        return cv2.divide(x,255-y,scale=256)
final_img=vce(img_gray,img_smoothing)
display(Image.fromarray(final_img))
```


In [ ]: