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Computer Vision & Internet of Things Intern @ TSF GRIP AUGUST2021

Task 2: Color Identification in Images

In [ ]:
```
```

Import Libraries

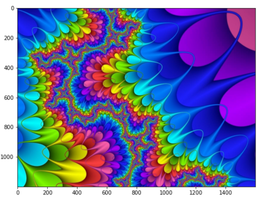
In [20]:
```
import cv2
import numpy as np
import matplotlib.pyplot as plt
```

Image

In [21]:
```
image=cv2.imread("C:\\Users\\Admin\\Desktop\\1523270.jpg")
```

In [22]:
```
plt.figure(figsize=(8,8))
plt.imshow(image)
```

Out[22]:
```
<matplotlib.image.AxesImage at 0x257a366de20>
```

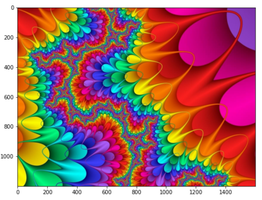


Convert image in RGB format

In [23]:
```
RGB=cv2.cvtColor(image,cv2.COLOR_BGR2RGB)
```

In [24]:
```
plt.figure(figsize=(8,8))
plt.imshow(RGB)
```

Out[24]:
```
<matplotlib.image.AxesImage at 0x257a3785a30>
```

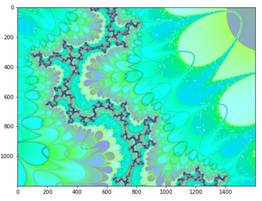


Convert image in RGB to HSV format

In [25]:
```
HSV=cv2.cvtColor(RGB,cv2.COLOR_RGB2HSV)
```

In [26]:
```
plt.figure(figsize=(8,8))
plt.imshow(HSV)
```

Out[26]:
```
<matplotlib.image.AxesImage at 0x257a37edaf0>
```



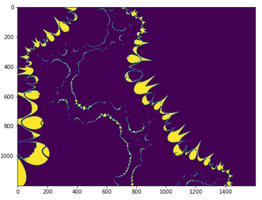
To detect yellow color

In [27]:
```
lower=np.array([25,150,50])
upper=np.array([35,255,255])
```

In [28]:
```
mask=cv2.inRange(HSV,lower,upper)
```

In [29]:
```
plt.figure(figsize=(8,8))
plt.imshow(mask)
```

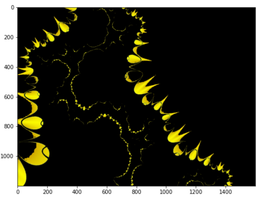
Out[29]:
```
<matplotlib.image.AxesImage at 0x257a39ba940>
```



In [30]:
```
res=cv2.bitwise_and(RGB,RGB,mask=mask)
```

In [31]:
```
plt.figure(figsize=(8,8))
plt.imshow(res)
```

Out[31]:
```
<matplotlib.image.AxesImage at 0x257a360f3d0>
```



In [ ]:
```
```

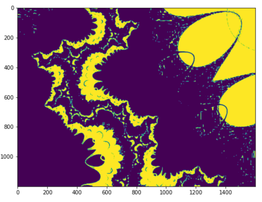
TRIAL

To detect pink color

In [32]:
```
lower=np.array([125,150,50])
upper=np.array([255,255,255])
```

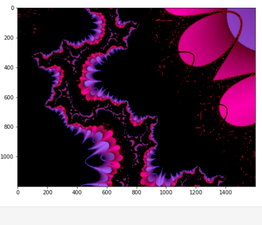
In [33]:
```
mask=cv2.inRange(HSV,lower,upper)
plt.figure(figsize=(8,8))
plt.imshow(mask)
```

Out[33]:
```
<matplotlib.image.AxesImage at 0x257a330f520>
```



In [34]:
```
res=cv2.bitwise_and(RGB,RGB,mask=mask)
plt.figure(figsize=(8,8))
plt.imshow(res)
```

Out[34]:
```
<matplotlib.image.AxesImage at 0x257a35f2a30>
```



In [ ]:
```
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In [ ]:
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