# HARRY POTTER'S INVISIBLE CLOAK

# How to implement this project ??

# Some important functions

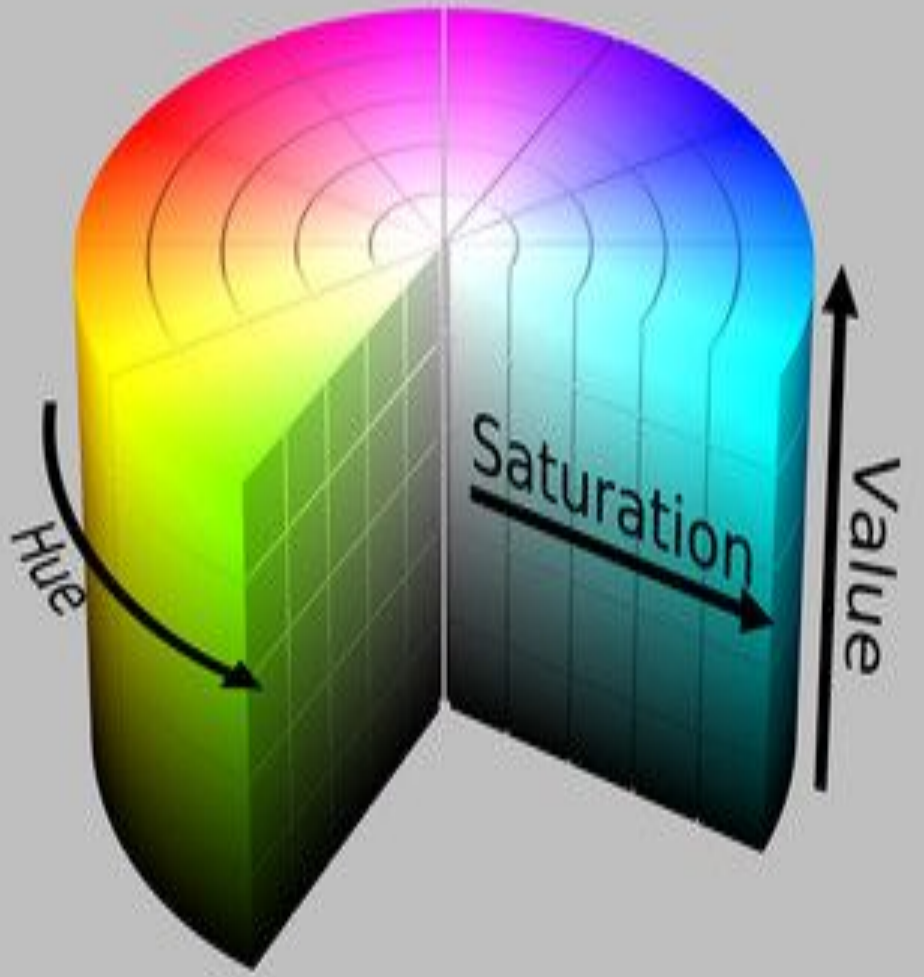
Before we dive into our coding part we need to understand following concepts -

1) HSV
2) Trackbar
3) Bitwise operation
4) Median Blurring
5) Dilation

# HSV

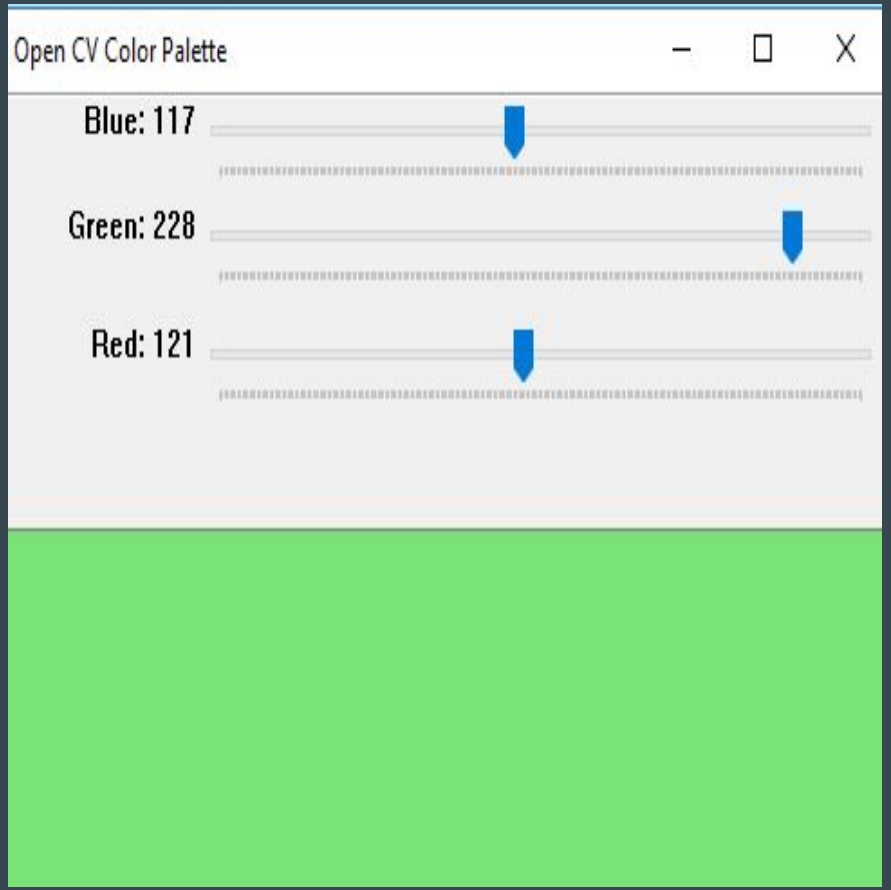
- HSV corresponds to:
  - **H**ue is the color
  - **S**aturation is amount of color
  - **V**alue is the brightness

- Why HSV and not RGB color space ?

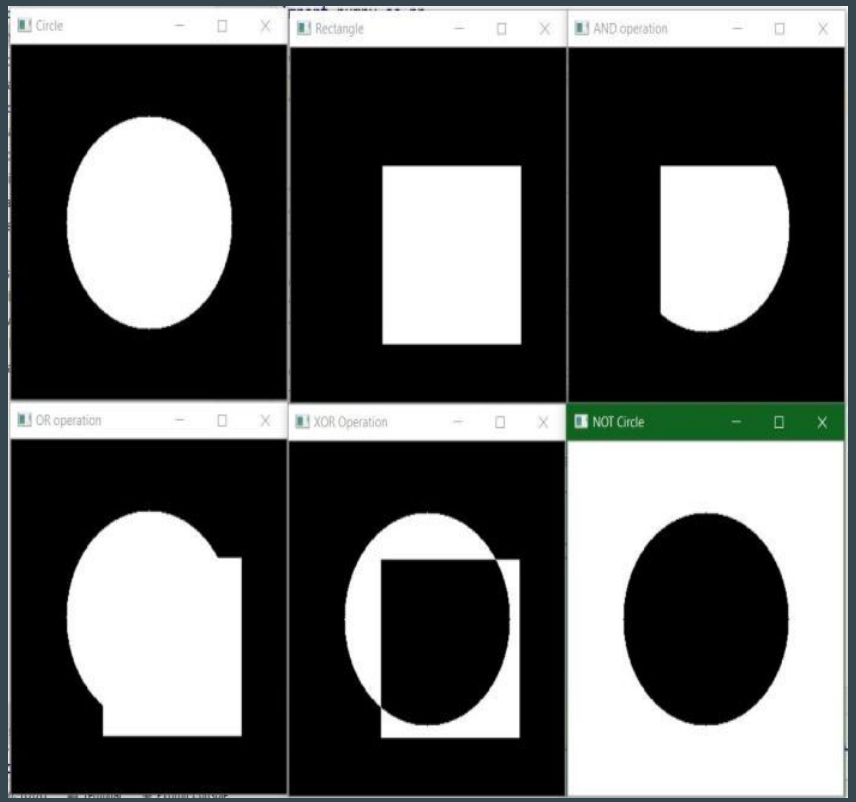


# TRACKBAR

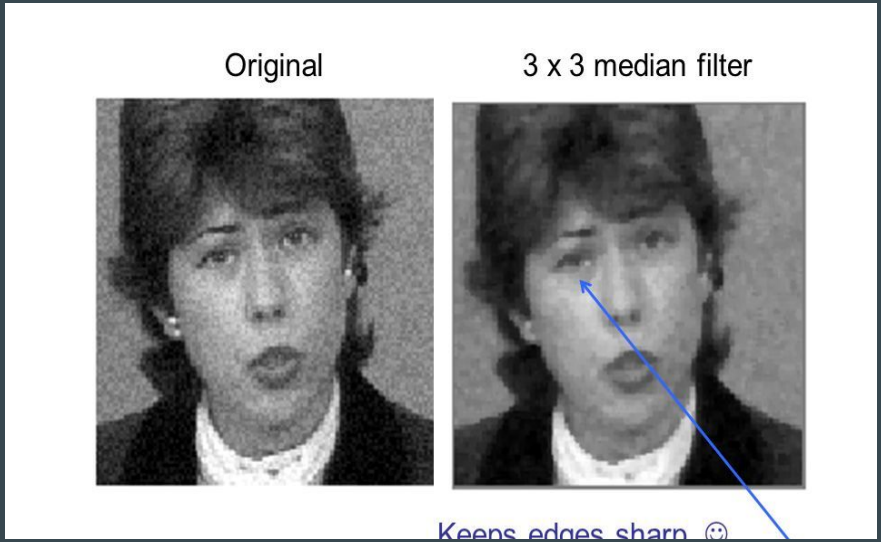
- **What are Trackbars?**
  - GUI element that lets the user to select a specific value within a range of values by sliding a slider linearly.
- **Why do we use Trackbars?**
  - Change variable value at runtime
- **How to create Trackbars?**
  - cv2.createTrackbar()
  - cv2.getTrackbarPos()



# BITWISE OPERATOR

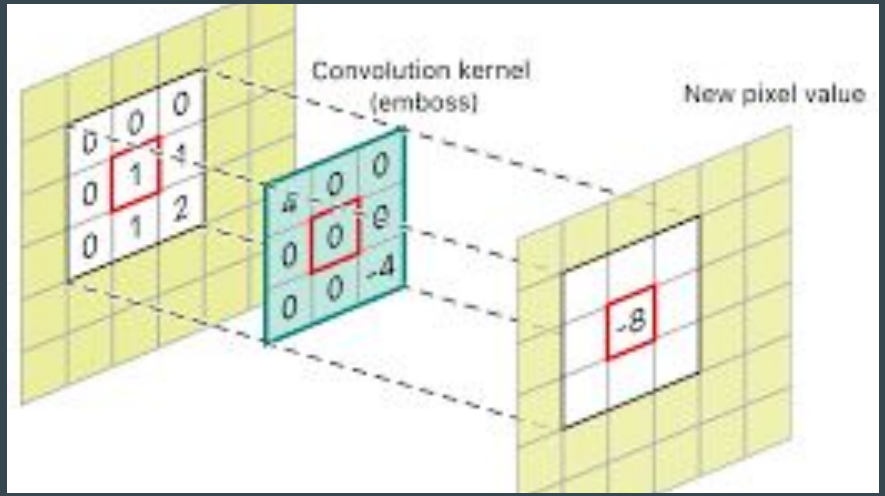



- **What is the use of this operator ?**
  - Extracting essential parts in images
- **Bitwise AND**
  - cv2.bitwise_and(img1,img2)
- **Bitwise OR**
  - cv2.bitwise_or(img1,img2)




# BASICS FOR MEDIAN BLURRING

- What is a filter?
- What is **IMAGE BLURRING**?

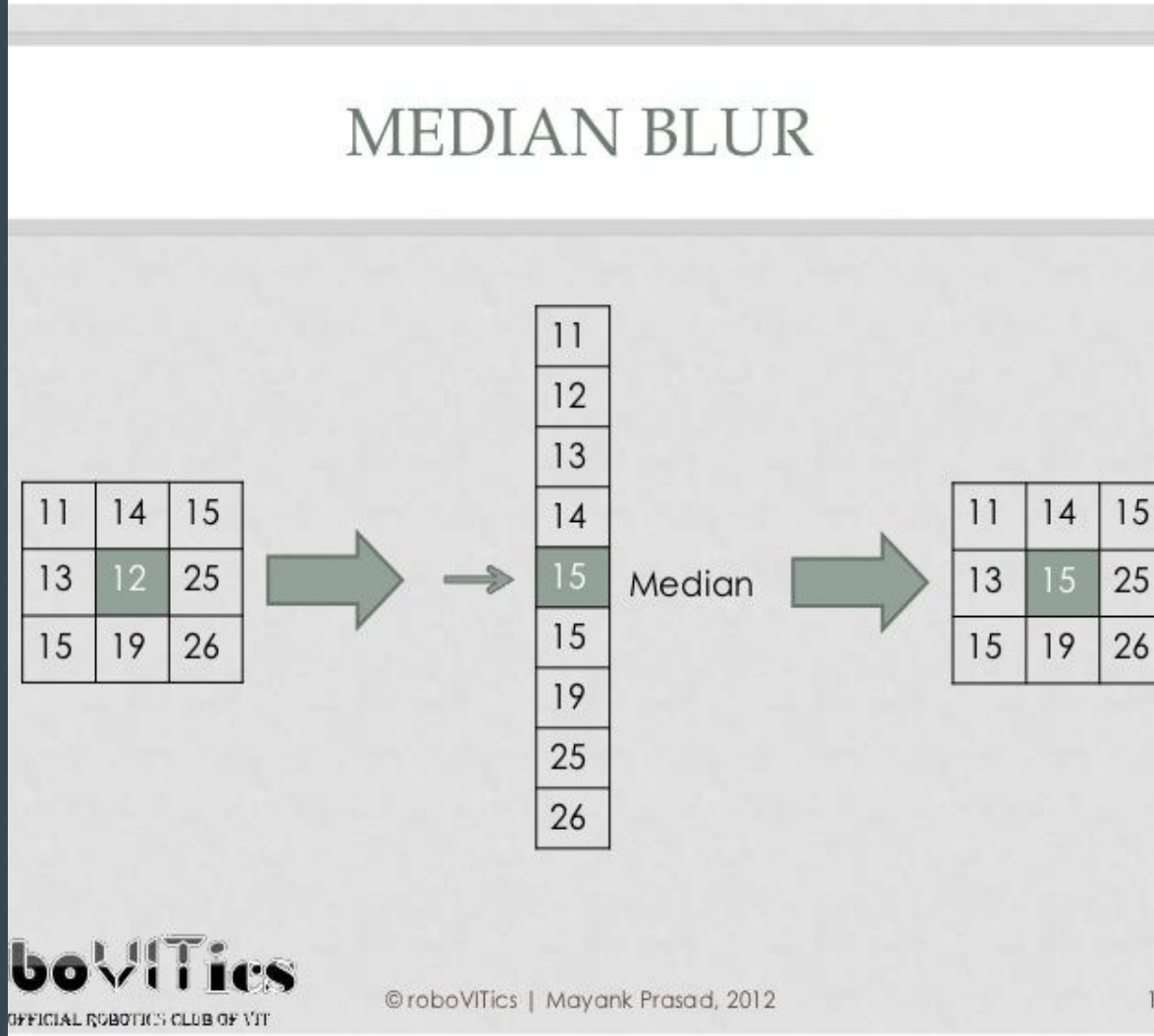


# MEDIAN BLURRING

- How does Median blurring work?
- cv2.medianBlur(src,  ksize)

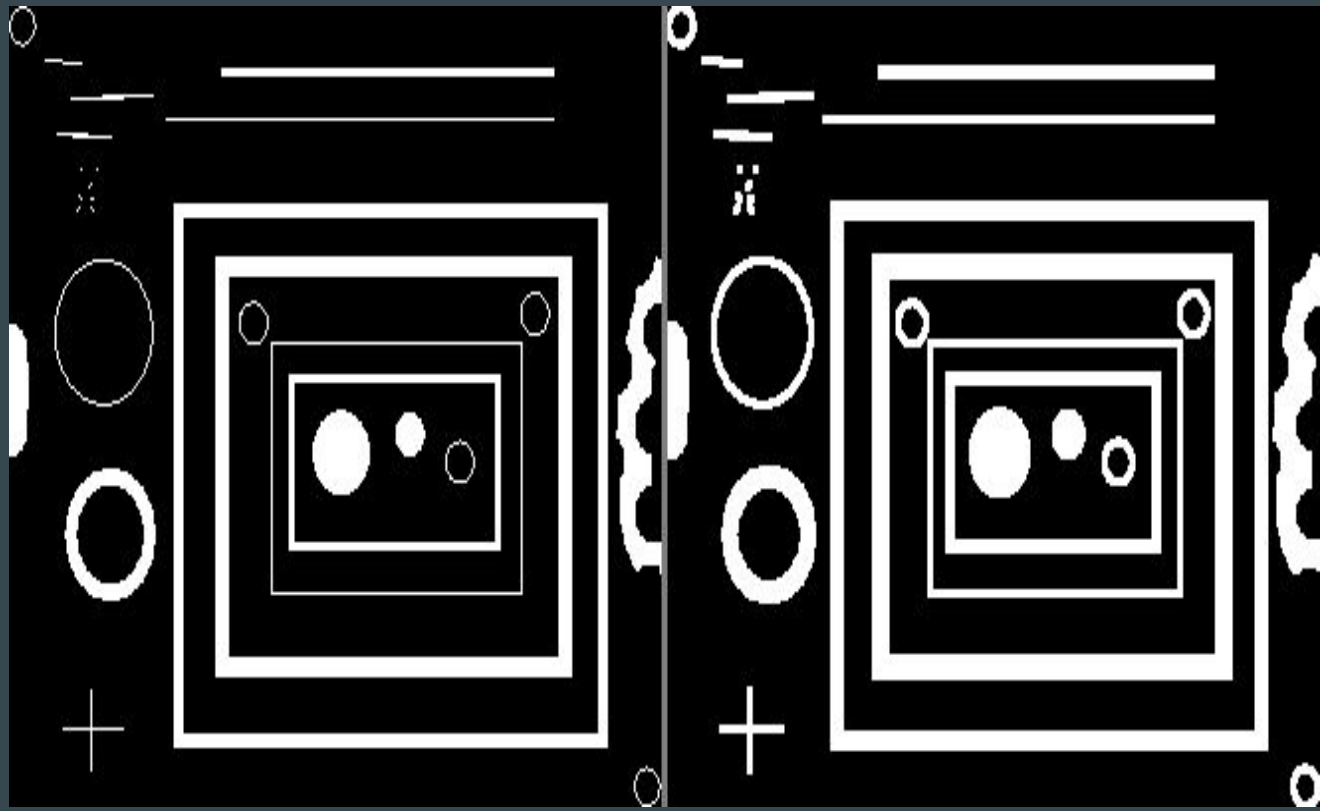
**src-** It represents the source (input image).

**ksize -** It represents the size of the kernel.



# DILATION

- Dilation expands the image pixels
- Dilation adds pixels to object boundaries.
- The value of the output pixel is the maximum value of all the pixels in the neighborhood.



Lets implement some of these concepts!