# Image Processing for Computer Vision Session 2



collected

# Topics

- Environment Setup
- What is computer vision
- Image Related Terminologies

### **Computer Vision**





### **Image**

#### Resolution:

The dimensions of the image, expressed as width x height.

Higher resolution means more pixels are used to create the image, resulting in finer detail and clarity.

#### Pixel:

It is the most basic component of a digital image and the smallest unit of a digital image or display.

#### Channel:

Digital color images are typically composed of multiple layers, each representing a primary color. Channels are used in color images to separate the different color components that make up the final image. Since grayscale images only need to represent the intensity of light at each pixel, a single channel is sufficient.

**Alpha Channel:** Some image formats include alpha channel to represent the transparency or opacity of each pixel (eg. .png format).

## Next topics:

- Color Modes,
- Image loading and saving using python
- Changing color modes

