



**Image Processing**

## Lab 1 - PT2

# Conversion to Grayscale

### 1. Averaging Technique:

Output pixel (s) value is the average of blue, green, and red intensity from the input pixel (r).

### 2. Luminance (Eye Correction)

Method	Blue Weight	Green Weight	Red Weight
BT. 709	0.0722	0.7152	0.2126
BT. 601	0.114	0.587	0.299

Using either of the above methods, the output pixel (s) value is the sum of all three intensities in the input pixel (r) where each intensity is multiplied by its corresponding weight from the above table.

### 3. Desaturation

Output pixel (s) value is the average of min and max intensities in the input pixel (r).

### 4. Decomposition

- Max: output pixel (s) is the max intensity value in the input pixel (r).
- Min: output pixel (s) is the min intensity value in the input pixel (r).

### 5. Splitting Channels

Output image has pixels of values of the desired intensity only from the input image. (Output image has pixels of a single channel and viewed as a grayscale image).