S2024

Document Image Analysis

## Assignment 2

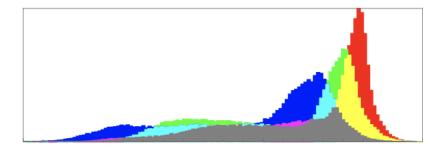
Deadline: Tuesday, Marsh 12, 2023 (end of day)

## Objective

In this exercise, you will create an algorithm to perform histogram and the representation of a histogram of a RGB image.

## Task: Histogram

- (a) Convert a RGB image in a gray-scale image. Use your own implementation.
- (L) Conceive an algorithm to perform a histogram on a gray level image. Apply it on the image in grayscale.
- Apply your algorithm on each channel of the RGB image.
- (d) Represent the histogram of a color image. More information in lesson 2, slide 12. An example is shown in the figure below.



## (e) Submit on ILIAS:

- Your code (one file should be enough),
- Five images: the original image, the grayscale image, the histogram of the grayscale image, the 3 histogram of the RGB image, the representation of the histogram of a color image.
- A file text with your name, surname and a brief description of your algorithm.