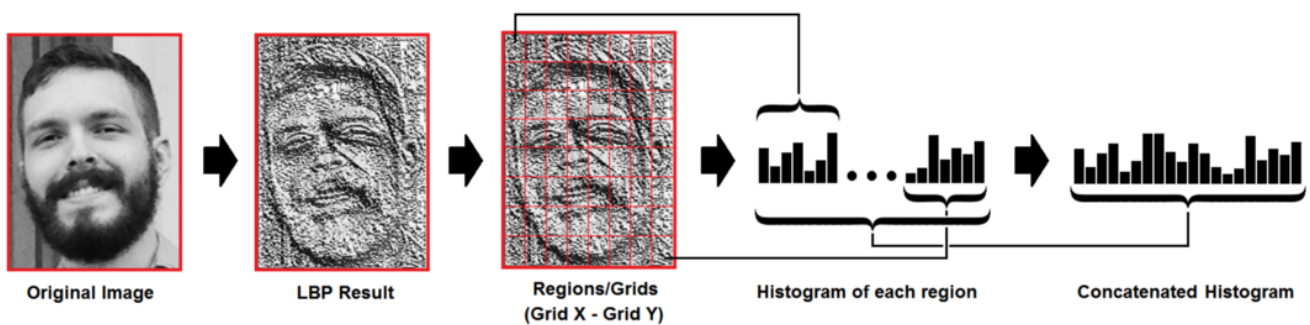# STEPS OF THE LBPH ALGORITHM

4. **Extracting the Histograms:** Now, using the image generated in the last step, we can use the **Grid** X and **Grid** Y parameters to divide the image into multiple grids, as can be seen in the following image:

Original Image   LBP Result   Regions/Grids (Grid X - Grid Y)   Histogram of each region   Concatenated Histogram

Based on the image above, we can extract the histogram of each region as follows:

- As we have an image in grayscale, each histogram (from each grid) will contain only 256 positions (0~255) representing the occurrences of each pixel intensity.

- Then, we need to concatenate each histogram to create a new and bigger histogram. Supposing we have 8×8 grids, we will have 8×8×256=16.384 positions in the final histogram. The final histogram represents the characteristics of the image original image.