

## FACE RECOGNITION: UNDERSTANDING LBPH ALGORITHM

**Note that Face Recognition is different of Face detection:**

- **Face Detection:** it has the objective of finding the faces (location and size) in an image and probably extract them to be used by the face recognition algorithm.
- **Face Recognition:** with the facial images already extracted, cropped, resized and usually converted to grayscale, the face recognition algorithm is responsible for finding characteristics which best describe the image.

**The Face Recognition Systems can operate basically in two modes:**

- **Verification or authentication of a Facial image:** it basically compares the input facial image with the facial image related to the user which is requiring the authentication. It is basically a  $1 \times 1$  comparison.
- **Identification or Facial Recognition:** it basically compares the input facial image with all facial images from a dataset with the aim to find the user that matches that face. It is basically a  $1 \times N$  comparison.