

## **Feature Extraction**

- Histogram
- Co-occurrence Matrix
- ☐ Fourier Transform
- Wavelet Transform
- Local Binary Patterns
- ☐ Local Ternary Patterns
- ☐ Harris Corner Detection
- SIFT Features



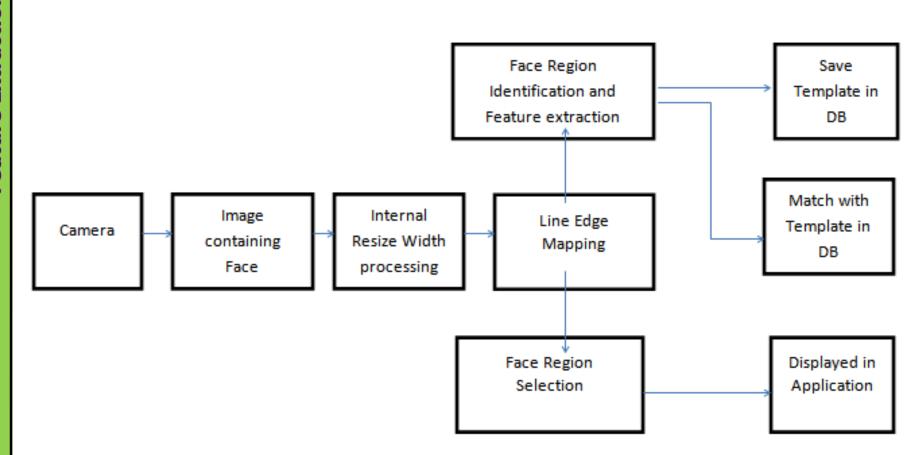
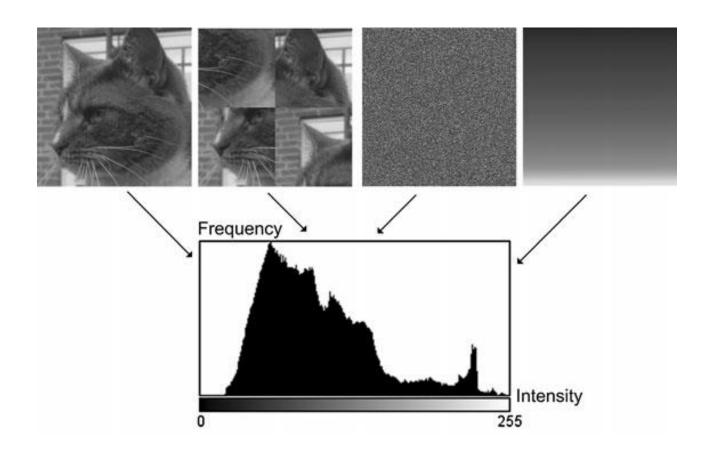


Fig. : General scheme of Face Recognition

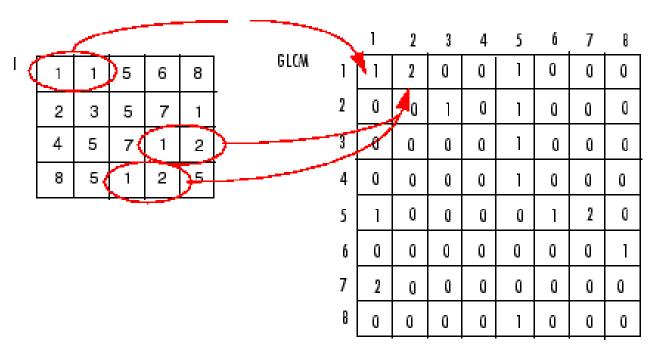


# Histogram





#### **Co-occurrence Matrix**

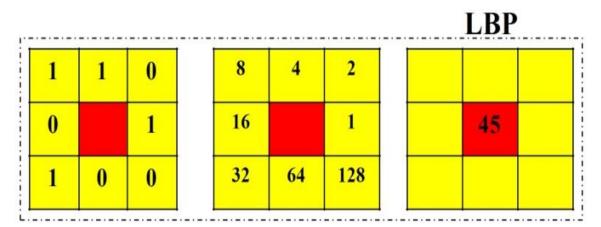


135°	90° ↑	45° ▼	
	y	o°	



# **Local Binary Patterns (LBP)**

2	5	3	9	1
6	17	29	1	5
2	5	9	18	2
3	17	3	2	9
1	2	3	2	1



Pattern

Fig. : Example of obtaining LBP for the 3×3 pattern



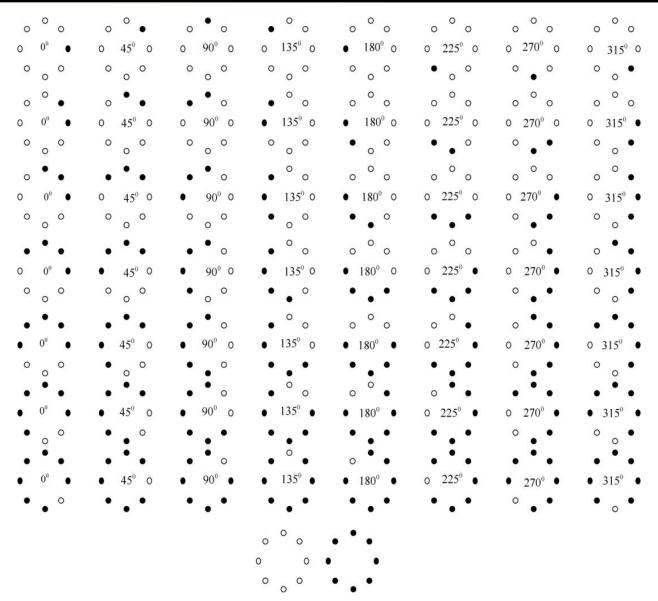


Fig. : Uniform patters when P=8. The black and white dots represent the bit values of 1 and 0



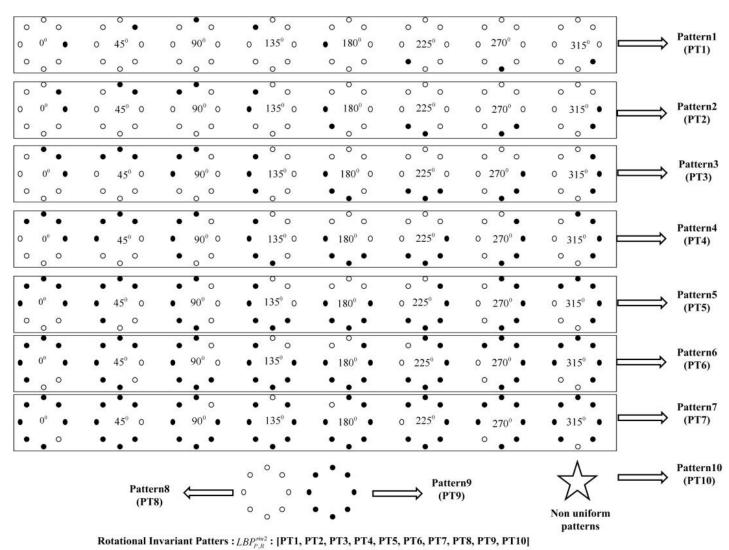


Fig. : Rotational variant S\_LP patters are converted into rotational invariant S\_LP patters



## **Local Ternary Patterns (LTP)**

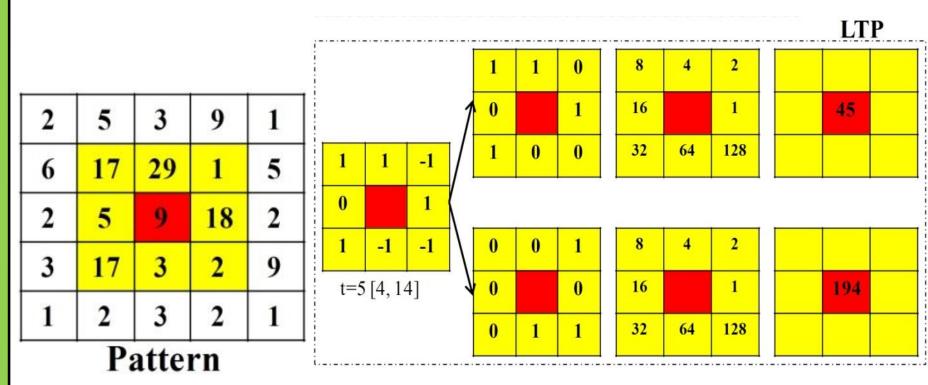


Fig. : Example of obtaining LBP and LTP for the 3×3 pattern



## Local Maximum Edge Binary Patterns (LMEBP)

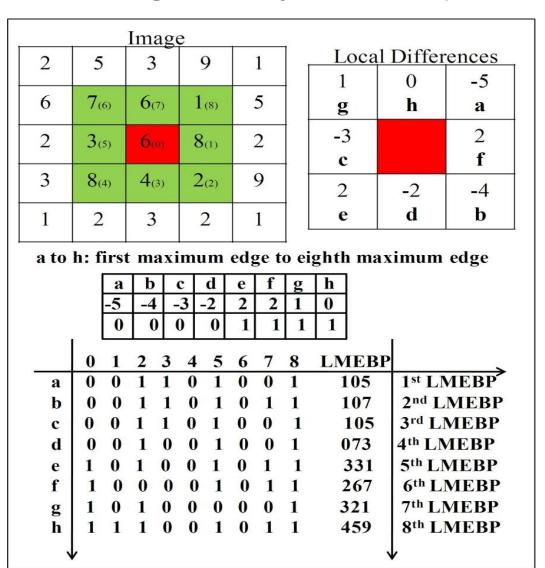


Fig. : Example of obtaining LMEBP for the 3×3 pattern