

## Università degli Studi di Brescia

## Multimedia Information Coding and Description Lab experience n. 10

## Vector Quantization

Implement a vector quantization scheme for a natural image:

- $\bullet$  Build the codebook by means of generalized Lloyd-Max algorithm, using blocks  $8 \times 8$  pixels.
- Recontruct the image at each iteration, using the codebook as given at that iteration, and compute the reconstruction error.
- Repeat the procedure many times with different initializations, checking their effect on the convergence