

ML in Applications

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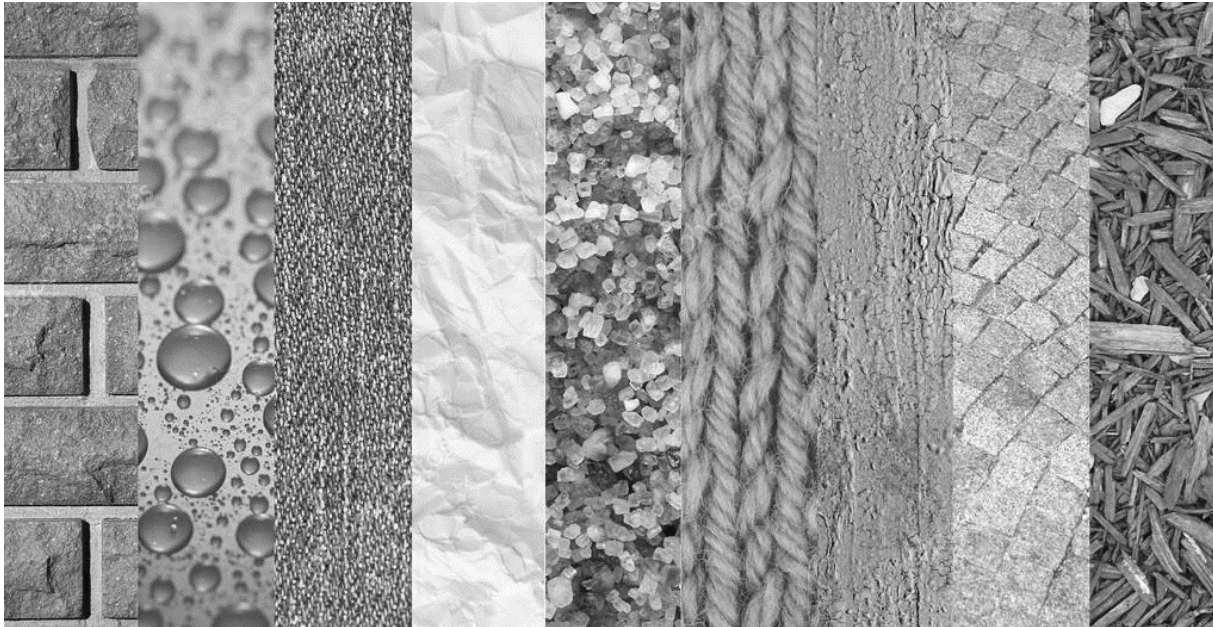
**Politecnico
di Torino**

Lab 2

Image classification via textural descriptors

Texture classification

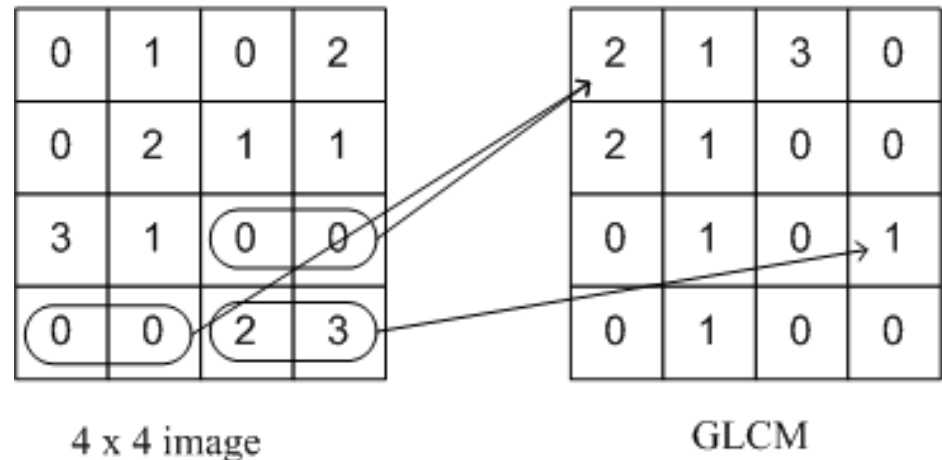
- The texture can be defined as a function of **spatial variation of the brightness intensity** of the pixels



- Texture classification means assignment of a sample image to a previously defined texture group

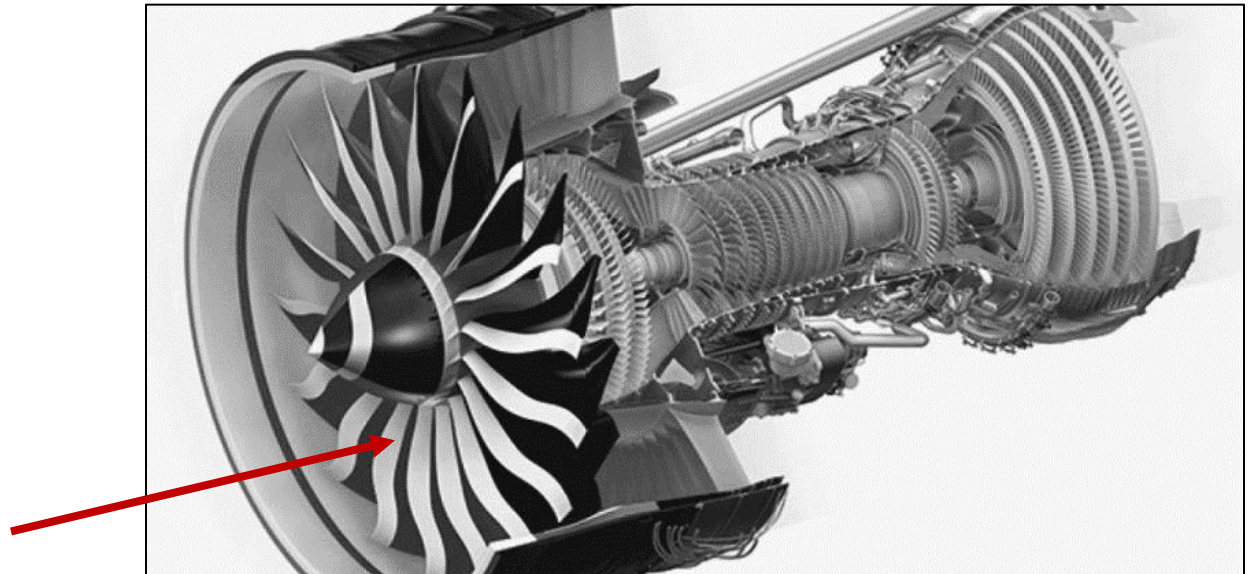
The gray-level co-occurrence matrix (GLCM)

- A statistical method of examining texture that considers the spatial relationship of pixels
- The GLCM describes **how often pairs of pixel with specific values** and in a **specified spatial relationship** occur in an image
- Properties of the GLCM are then extracted:
 - contrast
 - correlation
 - homogeneity [...]



Case study

- Aircraft engine vanes quality



ML pipeline

