

Algoritmo 1-NN con umbral ajustable:

- **Procedure 1-NN with adjustable threshold**
- **Design parameter:** an adjustable distance threshold $\delta \approx 0$ to be optimized
- **Given** a memory of N landmarks' images and their corresponding normalized grey histograms:
 - [$(L_1 \rightarrow I_1 \rightarrow H_1)$ $(L_N \rightarrow I_N \rightarrow H_N)$] ; where L are landmarks, I images and H normalized histograms
- For a new image [$I_{\text{new}} \rightarrow H_{\text{new}}$] to be recognized as a possible landmark **do**
 - Compute the Euclidean distance of H_{new} to all the normalized histograms stored in the memory and take the minimum distance d_{min}
 - **If** [$d_{\text{min}} \leq \delta$] **Then** [classify the new image as the landmark corresponding to the minimum **distance** d_{min}] **Else** [classify the new image as "unknown"]
- **Note1:** the adjustable distance threshold is meant to avoid false alarms and simultaneously to keep a good efficiency in the classification of the real landmarks. For its experimental tuning it is advisable to implement a search starting with a small value near zero ($\delta_{\text{min}} = 0,1$) up to a maximum value ($\delta_{\text{max}} = 1,0$) by means of small scanning steps $\approx 0,1 \rightarrow 0,1 \leq \delta \leq 1$
- **Note 2 :** the recognizer 'memory must be as big as possible and well-balanced(all the landmarks must have the same number of instances stored in the memory) .