Input: Let I the set of images obtained from signal data samples for each individual and for each channel

Each element of I is class marked. (I\_ic : imagen del sujeto i correspondiente al canal c, n= #sujetos, f=#canales)

Output: Matrices O\_A and O\_B

For each channel c

Set D(c) as an empty set

For each element I\_ic of I (con 1≤ i )

Extract descriptors set dI\_i(c) from I\_ic using SIFT

Add dI\_i(c) to D(c)

For each channel c

Obtain, from D(c), using k-mediods, the set C(c) of class representative descriptors.

Initialize with zeros the f x n(c) matrices M\_A and M\_B, where f is the number of channels and n(c) is the cardinal of C(c)

For each channel c

For each image I\_ic of I (con 1≤ i )

Let dI\_i(c) be the descriptor set of I\_ic

Execute SiftMatch between C(c) and dI\_i(c)

if I\_ic ~~is~~ belongs to class A

Increment by 1 to M\_A(c, j), if the jth element of C(c) matches with some descriptor of dI\_i(c)

if I\_ic ~~is~~ belongs to class B

Increment by 1 to M\_B(c, j), if the jth element of C(c) matches with some descriptor of dI\_i(c)

For each channel c

Form O\_A(c) with descriptors j from C(c) such that M\_A(c,j) is zero.

Form O\_B(c) with descriptors j from C(c) such that M\_B(c,j) is zero.