

Class project for the module Human Psychophysics: PartI

**Elizabeth Thomas
Université de Bourgogne
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1) Construct a Kohonen network in order to carry out the classification of the vectors

(1 1 0 0)
(1 0 0 0)
(0 0 0 1)
(0 0 1 1)

Construct a network that is flexible in terms of the size of the input vector. This will permit you to easily utilize the patient and healthy subject data.

Pay attention to the adjustment in the learning rate. You may have to find the value that allows a convergence (i.e. synaptic weights that converge).

The vectors (1 1 0 0) and (1 0 0 0) should fall in one class I while the remaining two vectors should fall in class II.

2) Once the training is completed carry out a test with the vectors

(0, 0, 0, 0.9)
(0, 0, 0.8, 0.9)
(0.7, 0, 0, 0)
(0.7, 0.9, 0, 0)

As you might expect, the vectors (0, 0, 0, 0.9) and (0, 0, 0.8, 0.9) should fall in class II while the vectors (0.7, 0, 0, 0) and (0.7, 0.9, 0, 0) should fall in class I.