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Assignment #10 on Self Organizing Neural Network

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Consider a Kohonen network with 100 neurons arranged in the form of a two-dimensional lattice with 10 rows and 10 columns .

The network is required to classify two-dimensional input vectors such that each neuron in the network should respond only to the input vectors occurring in its region.

Train the network with 1500 two-dimensional input vectors generated randomly in a square region in the interval between -1 and +1. Select initial synaptic weights randomly in the same interval (-1 and +1) and take the learning rate parameter α is equal to 0.1.

Test the performance of the self organizing neurons using the following

Input vectors:

$X_1=[0.1 \ 0.8]^T$, $X_2=[0.5 \ -0.2]^T$, $X_3=[-0.8 \ -0.9]^T$, $X_4=[-0.0.6 \ 0.9]^T$.

Deadline: 15/Nov/2020 (It will be consider in C3 evaluation)

All the best

Priya Shukla