

INDICAȚII LABORATORUL 2

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% Problema 2
clear all; close all; clc;

v1= 10;
vs1= 0.1;
x1= -v1:vs1:v1;
v2= 10;
vs2= 0.1;
x2= -v2:vs2:v2;

% introducerea parametrilor neuronilor
w1= input('pondere w1 = ');
w2= input('pondere w2 = ');
b= input('deplasare b= ');

% calculul iesirilor
[X1, X2]= meshgrid(x1, x2);
U= w1*X1 + w2*X2+b;
Y1= tansig(U);
Y2= double(hardlim(U)); % hardlim returneaza valoare logica!!

% reprezentari grafice
figure(1); mesh(X1, X2, U) ;
title('u(x1, x2)'); xlabel('x1'); ylabel('x2'); zlabel('u') ;
uv= min(min(U)):vs1:max(max(U));
y1v= tansig(uv); y2v= hardlim(uv);
figure(2); plot(uv, y1v, uv, y2v) ;
title('\sigma(u)'); xlabel('u'); ylabel('y') ;
axis([min(min(U)) max(max(U)) -1.1 1.1]); grid ;
figure(3); mesh(X1, X2, Y1)
title('y1(x1, x2)'); xlabel('x1'); ylabel('x2'); zlabel('y1')
figure(4); mesh(X1, X2, Y2)
title('y2(x1, x2)'); xlabel('x1'); ylabel('x2'); zlabel('y2')
```