Zhuo Chen, Yidan Pan
Equally contributed

Homework 4

Problem 4

Table 1: Parameters of Training BP Network to Fit Iris data

Network parameters	
Topology	$(4+1_{Bias})$ — $(2+1_{Bias})$ — 3
Transfer function	tanh with slope of 1
Learning parameters	
Initial weights	drawn from U$[\frac{-1}{\sqrt{NPE}}, \frac{1}{\sqrt{NPE}}]$
Learning rate (α)	0.01
Momentum	0.7
Epoch size (*Epoch*)	75
Stopping criteria	learn count (t) $> 3000 \times 75$
Error measure	$\frac{Number\ of\ Correctly\ Classified\ Inputs}{Number\ of\ All\ Inputs}$
Input / output data, representation, scaling	
# training samples (N_{tr})	75
# test samples (N_{tst})	75
Scaling of inputs	already scaled
Scaling of outputs	set the maximum element of the column to 1, others to 0