Assignment 5

for NeuroComputing/ Theoretical Neuroscience 2014

This assignment is a little project in which you should study a network of randomly connected Izhikevich neurons. Use the program IzhikevichRanNet.m and modify it as necessary.

The purpose of this assignment is to probe the network with some questions. Pick a question you would like to study. For example, you could ask about the consequences of different thalamic input, or how stable the oscillations are to variations such as different input patters or the size of the network. Make a hypothesis and show how the network behaves.

You should write up your experiment with a one-page report. State what your question is and what you expect (e.g. what is your hypothesis). Then explain briefly what modifications you made to the program and describe the results and your conclusion. Don't hesitate to ask if you want to discuss your ideas.

Send your answers to prof6508@cs.dal.ca with subject line A5. Please submit your work in one program for both questions. This assignment must be received by the end of Friday, Feb 28.