

General Information			
Course name ÚINF/NEU1/15	Neural Networks	ECTS Credits	5
		Semester	1
Aims			
To establish student understanding and knowledge for using basic paradigms of neural networks.			
Content			
Feed-forward and recurrent neural networks; back propagation algorithm to adaptation of neural networks; capability of neural networks to be universal approximators. Hopfield neural networks and solving optimisation problems. Kohonen neural networks. Neural networks in connections to computational models. Theoretical problems of neural networks.			
Assessment Methods and Criteria			
<p>1. Attendance - students are expected to attend each class according to the schedule. Should the student miss three or more classes, he/she will not receive credits for the course no matter what his/her overall results are on the tests(s). The student must be on time for class.</p> <p>2. Active participation - students are required to do their best with respect to active participation in seminar sessions. Students are expected to bring their own copies of the required materials and complete the assigned tasks and exercises.</p> <p>3. Assessment – students will take 2 written tests. There will not be any re-take tests for the students who failed in one or both credit tests.</p> <p>Final assessment – scores of both tests will be summed up and it must be minimum 51%, which is a pass mark for the course. Otherwise, the students will not receive credits for the course. The final grade for the course will be based on the grading scale.</p>			
<p>Grading Scale (in %):</p> <p>A 91-100%</p> <p>B 81-90%</p> <p>C 71-80%</p> <p>D 61-70%</p> <p>E 51-60%</p> <p>FX 50 and less</p>			
<p>Grading System:</p> <p>The University recognizes the following six degrees for the evaluation of the study results:</p> <p>a) A – excellent (excellent results) (numerical value 1)</p> <p>b) B – very good (above average results) (1.5)</p> <p>c) C – good (average results) (2)</p> <p>d) D – satisfactory (acceptable results) (2.5)</p> <p>e) E – sufficient (results meet the minimum criteria) (3)</p> <p>f) FX –failed (requires further work) (4)</p>			
Bibliography			

HAYKIN, S. O.: Neural Networks and Learning Machines, Prentice Hall, 1999, 2008
HERTZ, J., KROGH, A., PALMER, R.G.: Introduction to the theory of neural computation,
Addison Wesley, 1991

