

<b>Facultatea</b>	<b>de Matematică și Informatică</b>
<b>Departamentul</b>	<b>de Matematică și Informatică</b>
<b>Postul vacant</b>	<b>Conferențiar</b>
<b>Poziția în statul de funcții</b>	<b>30</b>

## Tematica prelegerii publice

- 1. Învățarea automată (Machine Learning)**
- 2. Deep learning**
- 3. Modele probabiliste**
- 4. Ensemble methods**

### Bibliografie minimală:

- *Artificial Intelligence: A Modern Approach*, Stuart Russell and Peter Norvig, Prentice Hall; 3<sup>rd</sup> edition, 2009
- *Neural Networks and Learning Machines* (3rd Edition), Simon Haykin, Prentice Hall, 2008
- *Neural Networks for Pattern Recognition*. Christopher M. Bishop. 1995, Oxford University Press, Inc., New York, NY, USA.
- *Pattern Recognition and Machine Learning*, Christopher M. Bishop, Springer-Verlag, 2006
- *Probabilistic Graphical Models*, Daphne Koller and Nir Friedman, MIT Press, 2009
- *Learning deep architectures for AI*, Yoshua Bengio, Now Publishers, 2009
- *Ensemble Methods. Foundations and Algorithms*, Zhi-Hua Zhou, CRC Press, 2012

### Articole recente:

- *The Bayesian ARTMAP*, Vigdor, Boaz and Lerner, Boaz, IEEE Transactions on Neural Networks, vol.18, no.6, pp.1628,1644, Nov. 2007
- *Shallow vs. Deep Sum-Product Networks*, Olivier Delalleau, Yoshua Bengio, Advances in Neural Information Processing Systems 24 (NIPS 2011)
- *Research frontier: deep machine learning-a new frontier in artificial intelligence research*, Itamar Arel, Derek C. Rose, and Thomas P. Karnowski. 2010, Comp. Intell. Mag. 5, 4 (November 2010), 13-18.
- *An Overview of Deep-Structured Learning for Information Processing*, Li Deng, 2011, Proc. Asian-Pacific Signal & Information Proc. Annual Summit & Conference (APSIPA-ASC)
- *Convolutional deep belief networks for scalable unsupervised learning of hierarchical representations*, Honglak Lee, Roger Grosse, Rajesh Ranganath, and Andrew Y. Ng. 2009. In Proceedings of the 26th Annual International Conference on Machine Learning (ICML '09)
- *Representing Probabilistic Rules with Networks of Gaussian Basis Functions*; Volker Tresp, Jürgen Hollatz, Subutai Ahmad, Machine Learning, 1997, Volume 27, Number 2
- *A fast learning algorithm for deep belief nets*, Geoffrey E. Hinton, Simon Osindero, and Yee-Whye Teh. 2006.. Neural Comput. 18, 7 (July 2006)
- *An Analysis of Single-Layer Networks in Unsupervised Feature Learning*, Adam Coates, Honglak Lee and Andrew Y. Ng, In Proceedings of the 14th International Conference on Artificial Intelligence and Statistics (AISTATS), JMLR W&CP 15, 2011
- *Mining time-changing data streams*, Geoff Hulten, Laurie Spencer, and Pedro Domingos, in Proceedings of the seventh ACM SIGKDD international conference on Knowledge discovery

and data mining (KDD '01), 2001

- *A General Framework for Mining Massive Data Streams*, Pedro Domingos , Geoff Hulten, Journal of Computational and Graphical Statistics, vol. 12 , 2003
- *Scaling Learning Algorithms towards AI*, Y. Bengio and Y. LeCun; editors: Bottou, L., Chapelle, O., DeCoste, D., and Weston, J., Eds., MIT Press, 2007
- *Ensemble Methods in Machine Learning*, T.G. Dietterich, Int. Workshop on Multiple Classifier Systems, Lecture Notes in Computer Science, Vol. 1857, pp. 1-15, 2000, Springer-Verlag.

### **Desfășurarea concursului**

**Data și ora**

**Ianuarie 2015, ora 10**

**Locul**

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