



Enseignants-chercheurs et chercheurs invités par Université Paris-Est en 2016

Pr Antonio de Pádua Braga – *University of Twente, Netherlands*

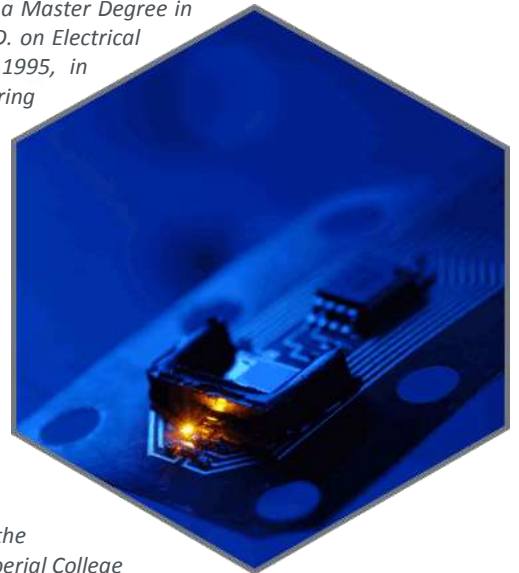
Course Program

Learning from data: recent advances in machine learning

Antônio de Pádua Braga received a B.Sc degree in Electrical Engineering (1987) and a Master Degree in Computer Science (1991), both from Federal University Minas Gerais, Brazil. His Ph.D. on Electrical Engineering was obtained from the University of London, Imperial College, in 1995, in Recurrent Neural Networks. Since 1991, he has been with the Electronics Engineering Department at Federal University of Minas Gerais where he is now a Full Professor and head of the Computational Intelligence Laboratory. He is also an Associate Researcher of the Brazilian National Research Council (CNPq).

As a Professor and researcher he has co-authored many books, book-chapters, journal and conference papers. As a research leader he has received many grants from Brazilian government research agencies and from private companies. Among the research grants received two were in the frame of international research cooperation agreements. One of them was with University of Paris, France, supported by the agencies CAPES (Brazil) and COFECUB (France) and the other with Université catholique de Louvain, Belgium, supported by CNPq (Brazil) and FNRs (Belgium).

He is now an Associate Editor of the international journal IEEE Transactions on Neural Networks and Learning Systems (2014-2015 term). He is also in the editorial board of the International Journal of Computational Intelligence and Applications, published by Imperial College Press, of which he was co-editor in chief and founder. He has served in many program committees of various international conferences, among them: International Joint Conference on Neural Networks (IJCNN), European Symposium on Neural Networks (ESANN), International Conference on Neural Networks (ICANN) and European Control Conference (ECC).



• Dates :

- Monday 20 June 2016
 - General introduction, principles of statistical learning, Generative and discriminative, Generative and discriminative models, Main paradigms of learning, Multi-objective learning, general introduction to R. programming.
- Tuesday 21 June 2016
 - Examples of R programming, Introduction to discriminative models. Linear separator and perceptron, Non-linear separation with Random projections, Extreme learning machines, Examples and exercises in R.
- Wednesday 22 June 2016
 - Bayesian classification, Density estimation, Gaussian models, Mixture of Gaussians, Kernel Density Estimation, Examples and exercises in R.

- Thursday 23 juin 2016
 - *Distance-based discrimination, Distance metrics, K-nearest neighbours, maximum margin separation, Gabriel graph learning, multi-objective model selection with Gabriel Graph, Examples and exercises in R.*
- Friday 24 June 2016
 - *Discussions, Conclusions, and Applications in R.*
- Location: **ESIEE Paris - salle 5401**
Cité Descartes, Noisy-le-Grand
- Targeted Public: *PhD students*
- More information: sylvie.cach@univ-paris-est.fr