Analyse de données

Component
École Nationale Supérieure d'Électrotechnique d'Électronique d'Informatique d'Hydraulique et des Télécommunications

In brief

- **plugin.odf-inp:PLUGINS_ODF_COURSE_NBHOURS_TXT:** 6 lectures + 6 practical sessions
- **Ametys Code:** M34Z7IAD
- **Open to exchange students:** No

Presentation

Objectives

Understand the principles of the principal component analysis, regression by least squares and classifiers that are not based on neural networks (Bayesian classification, support vector machines, regression trees and clustering methods).

Description

- Principal component analysis
- Least squares and regression
- Bayesian classification
- Support vector machines
- Decision trees

- Clustering

Pre-requisites

Probability bases, optimization with constraints, differentiation of quadratic forms, matrix diagonalization, SVD

Bibliography

1. I. Jolliffe, Principal Component Analysis, Springer-Verlag, 2002.
2. R. Duda, P. Hart and D. Stork, Pattern Classification, Wiley-Interscience, 2nd edition, Nov. 2000.

Useful info

Contacts

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