

## A5: Machine Learning

Machine Learning deals with building computer systems that optimise performance criteria using previous data or experience. A situation where learning is required is when there is no human experience or it is not easily explained. Another is when the problem to be solved changes over time or depends on a particular environment. Machine Learning transforms data into knowledge and provides general purpose systems that adapt to circumstances. Among the many successful applications that can be cited are: speech recognition or handwritten text, autonomous robot navigation, document information retrieval, cooperative filtering, diagnostic systems, DNA microarrays analysis, etc.

This module presents several methods based on different fields such as Statistics, Pattern Recognition, Artificial Intelligence and Data Mining. The aim is to know these methods from a unified perspective, noting which problems can be solved, as well as the limitations and circumstances of using each one of them.