

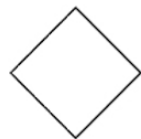
## Información Empresa

### Talentum



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## Artificial Intelligence Systems applied to the Economic Environment

The development of Information and Communications Technologies (ICTs) has created a global market in all financial products from money to stocks, such that it is possible to invest in financial markets around the world.

Investment decisions are very complex in nature, but the development of ICTs has allowed the development of automated trading systems (ATS). An automated trading strategy is a decision making system that creates purchase and sale orders to the market according to a set of parameters. There are multitude of ATS or so called expert advisors (EAs) that are created by converting a set of trading system's rules into code that a computer can convert in orders that automatically submits to a market center or exchange via trading platforms. Some of the more influential trading rules are moving average (MA), moving average convergence/divergence (MACD), relative strength index

## Información General



Grupo de Investigación  
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Programa de Doctorado  
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(RSI) and Larry Williams rule (Ni and Yin, 2009). Nevertheless, the complexity of these decisions involve that the performance of these ATS depend on a large set of factors. In fact, these ATS are continuously improved to consider an increasing volume of information and parameters. Moreover, there are many criteria to estimate the performance of trading systems. In this PhD thesis, we analyze in detail the performance of ATS for decision support in financial markets. More specifically, the performance of a large set of ATS developed by a company is analyzed taking into account real data taken from the Foreign Exchange Market (Forex, FX, or Currency market). The aim is to determine the relations between the market trends (bull market, bear market, etc.) and the strategies used by ATS. Trading in Forex averaged \$5.3 trillion per day in April 2013 (Bank for International Settlements, Triennial Central Bank