Modelos de algoritmos genéticos y redes neuronales en la predicción de indices bursátiles asiáticos

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This study analyzes the capacity of multivariated models constructed from genetic algorithms and artificial neural networks to predict the sign of the weekly variations of the Asian stock-market indexes Nikkei225, Hang Seng, Shanghai Composite, Seoul Composite and Taiwan Weighted. The results were compared with those of an ingenuous model or AR (1) and a strategy of buy and hold. The multivariable model from genetic algorithms obtained the best performance in terms of yield corrected by risk, measured by the indexes of Sharpe and Treynor. Although the Ward network obtained a better predictive capacity, this was not reflected in a greater yield corrected by risk. The results were confirmed in the series generated through a bootstrap process. Thus, this study presents evidence that for the Asian market, the genetic models and Ward recursive networks can predict the directional change of the index, along with to generate greater returns than an ingenuous model and a strategy buy and hold.