

以遺傳神經網路建構台灣股市買賣決策系統之研究

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摘要

This paper used 18 kinds of price and volume technical indices transferred from the Taiwan stock price index as the input parameters, the maximization of the final capital as the fitness function, the genetic algorithms as the optimization tool to construct the trading system based on neural networks. The results showed that the four kinds of trading strategies, the Genetic Neural Networks strategy(GNN), the Genetic Logic Rule strategy(GLR), the Single Genetic Logic Rule(SGLR), and the buy and hold strategy, in test period produced the average year profit rate respectively are 10.27%, 2.02%, -0.05%, and -7.2 . Moreover, compared the risk assessment of the GNN, GLR and SGLR strategies, the probability of average year profit rate higher than the buy and hold strategy rate respectively are 91.77%, 90.51%, and 79.39. Therefore, the GNN trading system is a not only effective but also stable Taiwan stock market of trading system.

關鍵字：stock market, technical index, genetic algorithms, neural networks.