Using Rough Set ,Support Vector Machines, and Optimization Algorithm for Financial System

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ABSTRACT

The problem studied here was about the stock price prediction for use of investors.Technical analysis is mainly concerned with market indicators.These technical indicators look at the trend of price indices and individual securities.In order to solve because difficulty of analysis that technical indicator causes and categorised accuracy， Application of rough set theory(RST) and Support Vector Machines(SVM) to set up decision system.In order to deal with uncertain problem of Stock price , set up dependence of materials in order to as decision maker(DM).Application of Self-organizing map(SOM) to discretize the continuous attributes in reconstructed decision table for the succeeding rough sets processing. In our experiments,utilize SVM to choose the best parameter association to adjust decision rule,enable improving its decision rule and predicting ability.Utilize RST to combine the occupation mode of the technical indicator,let investors know the range of ups and downs of the stock price clearly .

Keywords : Rough Set Theory ; Technical Indicator ; Self-organizing map ; Support Vector Machines

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