ABSTRACT

Thesis: 94 p., 18 fig., 18 tabl., 2 append., 43 sources.

DECISION SUPPORT SYSTEMS, MATHEMATICAL MODEL, CRITERIA OF QUALITY, ADEQUACY CRITERIA, COMPLEX CRITERION, AUTOMATED SELECTION.

Object of research: linear and nonlinear non-stationary processes in economics and finance.

Purpose: to design and develop a decision-making system for automated choice of forecast models.

Subject of research: mathematical models and methods of formal description of processes in economics and finance; decision support system.

The diploma project is devoted to the implementation of decision support system for the analysis of nonlinear processes. This work is especially relevant because the construction of models can take into account the long-term behavior of time series and thus provide long-term forecasts. The use of predictive models can be used to approximate nonlinear, non-stationary processes, with minimal errors. The work analyzes the existing criteria of the adequacy of the models, the criteria of the quality of estimates of forecasts, which are used in forecasting. A decision support system has been created.