

ABSTRACT

Graduate work (thesis for specialist degree): 104 pages, 5 diagrams, 2 annexes, 30 sources.

The study is devoted to the problem of prognostication/prediction of processes of different nature using a specially designed systematic approach that differs from others by introduction of additional/supplementary procedures of data analysis.

The research describes already existing discrete and continuous models, which also consolidates the expediency of their usage; offers the elements of systematic approach and modeling of time series by random processes with limited variation.

The system is realized using Python programming language; the examples of application of the program for prognostication/prediction of real financial and economic, and physical indicators/rates/indexes are provided. This system allows to download and input data, shows values and the graph of plotting a prognosis, final results are saved/written to file. The ways of potential further improvement of the system are examined.

TIME SERIES, RANDOM VARIABLE, RANDOM PROCESS, SAMPLE, PROGNOSTICATION, PRINCIPLES OF SYSTEM ANALYSIS, LIMITED VARIATION.