

ABSTRACT

Thesis: 107 pages, 34 drawings, 8 tables, 26 sources.

URBANIZATION, FORECASTING THE QUANTITY OF THE CITY POPULATION, AUTOREGRESSION MODEL, NEURAL NETWORK, BACKPROPAGATION.

The purpose of the study is to compare the models for forecasting the number of the population living in cities, and determine the best among them.

For this purpose, the ARIMA model (autoregressive integrated moving average) and Backpropagation were used, also LS (least squares method) was used to determine the coefficients of the ARIMA model.

The object of the study was statistical data on the socio-economic processes, which are described by time series in order to identify the growth rate of urban population.

The program was written in C # and was developed to forecast input statistical data and compute estimates for comparing models and methods used.

As a result, the best method was chosen which is suitable for this solution, and with the help of it the forecast was executed for 10 years.