

Master's Thesis Supervisor's Expert Opinion

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Title of Master's Thesis: Modelling of economic processes using ARIMA models

Aim of the Thesis: The aim of this work is to map the family of ARIMA models (SARIMA, FARIMA, etc.) in terms of their application to different types of processes. Part of this work will be analysis of selected real process, incl. verification and comparison of proposed models.

Thesis Supervisor: Ing. Martin Ibl, Ph.D.

Study Programme: Informatics and System Engineering

Academic Year: 2020/2021

Difficulty of the Topic

	Excellent	Very good	Satisfactory	Unsatisfactory	Cannot be evaluated
Theoretical knowledge	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input data and their processing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methods used	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thesis Evaluation Criteria

	Excellent	Very good	Satisfactory	Unsatisfactory	Cannot be evaluated
Degree of achievement of the aim of the thesis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Original attitude to the topic processing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adequacy of the methods used	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depth of analysis (relative to topic)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Logical structure of the thesis and scope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working with Czech and foreign literature including citations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal arrangement of the thesis (text, charts, tables)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language level (style, grammar, terminology)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Applicability of the Results of the Thesis

	High	Medium	Low	Cannot be evaluated
For theory	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For practice	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other Comments on the Thesis

The thesis is structured in five chapters. The flow of individual chapters is logical and fluent. The content of some chapters is hard to comprehend and the formatting issues (number formats, indexes in formulas) does not help with clarity of presentation. The analytical depth could be better, since the author mostly follows functional capabilities of SW tool SPSS Statistics. Other models like SARIMA, ARIMAX are not practically used. On the other hand, the comparison of individual ARIMA models in table 41 (chapter 3.3.1.5, page 72) brings significant value to the results of this thesis.

The student did work mostly independently and his logical reasoning and conclusions are correct.

Comments on the Outputs from the Theses System

Checked - is not plagiarism. Maximum similarity level: 0%

Questions and Suggestions for Defence

Why did you use only basic ARIMA models in the chapter 3?

Final Evaluation

I **recommend** the thesis for the defence.

I propose to grade this Master's thesis as follows: **C**

In Pardubice 25.5.2021

Signature