

OPINION

by Prof. Daniela Borissova, D.Sc. from Institute of Information and Communication Technologies at BAS, member of the scientific jury,
according to order No 246/14.09.2022 of the Director of IICT-BAS

About: Dissertation work of Hristo Konstantinov Blidov, entitle “Intelligent methods for analyzing processes in justice administration”, submitted for the acquisition of the educational and scientific degree “Doctor”, professional field 4.6 “Informatics and computer sciences”, doctoral program “Informatics”

At the first meeting of the scientific jury, held on 16.09.2022, I was assigned to prepare an opinion on the procedure, for which I received all the necessary documents.

ACTUALITY

Intelligent methods for the analysis and modeling of complex processes are a prerequisite for extracting useful information by applying various mathematical techniques. Using the apparatus of generalized networks for modeling purposes is a proven technique for solving complex practical problems. Taking into account the entry of IT into various fields determines the relevance and necessity of conducting research related to the construction of intelligent models for the analysis of various processes, incl. analysis of processes in justice administration.

KNOWLEDGE OF THE PROBLEM

From the overview made, as well as from the published results on the topic of the dissertation work, it can be established that the doctoral student is well acquainted with the nature of the researched issues. Additional proof of this is the number of literary sources used.

ANALYTICAL CHARACTERISTIC

The dissertation has a total volume of 152 pages. It is structured as follows: introduction, 3 chapters, conclusion, summary of obtained results, Directions for future research, publications on the topic, declaration of originality of results and bibliography.

The purpose of the dissertation research is formulated on page 3, for the realization of which 8 additional tasks are formulated.

In Chapter 1, an analysis of the essence and description of the judicial process is made. Special attention is paid to civil procedural law, the types of claims and the parties in the civil process.

In Chapter 2, the emphasis is on intelligent methods for analyzing complex processes and basic approaches in computational intelligence. The essential features of the theory of generalized networks, intuitionistic fuzzy sets and indexed matrices are described.

In Chapter 3, the results of the application of intelligent methods for the analysis of the processes in the administration of justice are presented. Aggregate grid models are described relating to the modeling of the first and second stages of the first-instance proceedings of the common claim process. Also presented are models realized through the means of the generalized networks of the appellate proceedings from the general claim process; model of the cassation proceedings from the general claim process and model of the proceedings for annulment of an effective court decision.

RESEARCH METHODOLOGY

The object of the research is the processes in the administration of justice, and the subject of the research is the modeling of these processes using the theory of generalized networks. The methodology used is appropriately chosen and contributes to the realization of the set goal and the tasks formulated in the dissertation work.

ABSTRACT AND AUTHOR'S REFERENCE

The submitted abstracts, in Bulgarian and English, faithfully reflect the content of the dissertation work and correspond to the requirements of Law on the Development of the Academic Staff in the Republic of Bulgaria and Rules for its Implementation. From the submitted declaration of originality, as well as from the publications on the subject of the dissertation, it can be determined that the described results are the personal work of the author.

ASSESSMENT OF COMPLIANCE WITH THE MINIMUM NATIONAL REQUIREMENTS

A total of 6 publications on the topic of the dissertation are presented, indexed in the world databases for scientific information, and 3 of them have been accepted for publication. Three of these publications are in IEEE Xplore, and the remaining three are in SJR publications. Thus, the presented publications on the topic of the dissertation research

fully satisfy the specific requirements of IICT-BAS for the acquisition of the educational and scientific degree “Doctor”.

CONTRIBUTIONS

I accept the contributions formulated by the PhD student with the exceptions of the first and second. From the first contribution, it follows exactly how the selection was made, and the application of the apparatus of the generalized networks for the analysis of the processes in the administration of justice is reflected through the formulated models in the following contributions. I value the PhD student's contributions as scientific and applied.

CRITICAL COMMENTS AND RECOMMENDATIONS

The dissertation is relatively well balanced, but it would be good if the author's contributions were presented more precisely. I recommend the doctoral student to be stricter in his statement in the next publications and description of scientific results.

CONCLUSION

The obtained results on the topic of the dissertation convincingly show that Hristo Konstantinov Blidov possesses the necessary theoretical knowledge and practical skills in the field of informatics and computer science, as well as proven abilities for independent scientific research. The presented dissertation meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Rules for its Implementation, as well as the Rules for the Specific Conditions for Acquiring Scientific Degrees and Holding Academic Positions at IICT-BAS. **The obtained results on the subject of the dissertation research give me sufficient reason to give a positive assessment of the dissertation work thus presented and I propose to the respected Scientific Jury to award Hristo Konstantinov Blidov the educational and scientific degree “Doctor” in the doctoral program “Informatics”, prof. field “Informatics and Computer Science”.**

21.10.2022

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