

## OPINION

**On the dissertation thesis by Hristo Konstantinov Blidov titled  
„Intelligent Methods for Analysis of Justice Administration Processes”  
for the acquisition of the educational and scientific degree  
“Doctor of Philosophy” in Professional Direction 4.6 “Informatics  
and Computer Technology“**

1. Hristo Blidov was born on October 24, 1988, in Sofia. He completed his higher education in Sofia University “St. Kliment Ohridski”, where in 2012 acquired the Master degree in Law. He was enrolled as regular PhD student in the Institute of Information and Communication Technologies – BAS on September 1, 2019. On August 29, 2022 he had the preliminary defense of his dissertation thesis.

With Ordinance of the Director of IICT-BAS, Prof. Galia Angelova, DSc, No. 246 dated September 14, 2022, the Scientific Jury for the defense of Blidov was constituted, with me being invited for its member.

2. The dissertation thesis of Hristo Blidov is 151 pages long, and consists of an Introduction, three Chapters, a Conclusion, a Summary of the achieved results, Directions for future research, Publications on the topic of the dissertation thesis, a Declaration for originality of the results, and a Bibliography comprising a list of 130 titles.

3. The thesis is dedicated to a topical problem on the crossing point of informatics and legal science. I recollect that more than 30 years ago, one of the founders of the then CCIIT, now IICT-BAS, Assoc. Prof. Georgi Gargov, had the idea of the mathematical-logical analysis of the acts of the Grand National Assembly of Bulgaria, as well as the procedures of their execution, but I am not aware of anyone else in Bulgaria to have been working on this subject.

Not dwelling on the thesis content in details, I will outline what, in my opinion, are its most essential contributions, as well as will formulate certain recommendations for the future studies of the candidate. I will immediately note that all critical remarks that I used to have regarding the preliminary version of the dissertation thesis, have been duly addressed. The first two chapters have review nature. They contain a presentation of the object of investigation, namely, the essence of the legal process and a presentation of the mathematical tools that have been employed in the research – generalized nets and intuitionistic fuzzy sets. As the author of both these concepts, I am pleased to witness their first application to the field of legal sciences.

The third chapter plays the central role in that dissertation thesis. It describes a total number of five generalized net models of the first and the second stages of the Initiating judicial proceedings, of the Appeal proceedings, Cassation review proceedings, as well as the Judgment revision proceedings in the course of the General claim process. In terms of contents, the models have been described with adequate level of detail and information. In some of the formal descriptions there are minor typographical inaccuracies that however do not mar the overall good impression. In the last 11<sup>th</sup> section of that chapter, are given the results of the research of the juridical process using the

apparatus of temporal intuitionistic fuzzy pairs. It has been correctly shown that each of the constructed pairs meets the conditions of intuitionistic fuzziness.

I accept Hristo Blidov's scientific contributions as formulated on page 132 in the "Summary of the achieved results".

4. The synopsis reflects correctly the contents of the dissertation thesis, and meets the requirements of the Academic Staff Development Act.

5. From the attached Reference, it is seen that Hristo Blidov has coauthored 6 publications regarding his dissertation thesis. Four of these have already been or will be published in Springer, after being communicated at international conferences, two of these are in proceedings of two international IEEE conferences conducted in Bulgaria (2020) and Poland (2022). All publications have been published in thematically relevant editions.

The PhD student has not provided any data for citations, but I have noticed the following citation:

A. J. Spasic, D. S. Jankovic, P. J. Rajkovic, D. S. Aleksic. Programme-Sensitive Modifications of Generalized Net Model of Software-Intensive Production of Stereoscopic Multimedia Content. Journal of Computer and Systems Sciences International, Volume 61, Issue 5, Oct. 2022, 824–842; <https://doi.org/10.1134/S1064230722050136>

6. I know Mr Blidov for the last couple of years. He attended by PhD lecture courses in Intuitionistic fuzzy sets and Generalized nets. While I did collaborate with him on the construction of the GN model reported in his first paper and was his coauthor in it, afterwards he continued working in the area by himself. Earlier this year, I have been twice a reviewer of papers with his participation.

7. Taking into consideration the fact that the dissertation thesis fully complies with the Regulations for the implementation of the Academic Staff Development Act, and the Regulations for Academic Staff Development at the Institute of Information and Communication Technologies at the Bulgarian Academy of Sciences, I give my **positive evaluation** and recommend to the respected members of the Scientific Jury to positively vote for awarding **Hristo Konstantinov Blidov** the educational and scientific degree "**Doctor of Philosophy**" in Professional Direction **4.6 "Informatics and Computer Technology"**.

October 23, 2022

Review:

НА ОСНОВАНИЕ

ЗЗЛА