

OPINION

by **Professor Leoneed M. Kirilov, PhD**

Inst. of Information and Communication technologies – Bulgarian Academy of
Sciences

on the Thesis for awarding educational and scientific degree “Doctor of Philosophy”
(PhD), under the Scientific field: 4. Natural Sciences, Mathematics and Informatics;
the Professional area: 4.6. Informatics and Computer Sciences, the Doctoral
program: Informatics

Author of the PhD Thesis: Toddor Veleve Veleve

**PhD thesis title: MODELING AND AUTOMATION OF STANDARDIZED
INFORMATION SECURITY MANAGEMENT SYSTEMS**

According to the Order No. 232 from October 01, 2025 of the Director of the
Institute of Information and Communication technologies – Bulgarian Academy of
Sciences, I have been appointed as a member of the Scientific Jury regarding the
PhD thesis of Toddor Veleve Veleve for awarding educational and scientific degree
“Doctor of Philosophy” (PhD) in the Scientific field: 4. Natural Sciences, Mathematics
and Informatics; the Professional area: 4.6. Informatics and Computer Sciences, the
Doctoral program: Informatics.

At the first meeting of the Scientific Jury on October 8, 2025, it was decided that I
would write an opinion on the dissertation.

As a member of the Scientific Jury I have received:

1. Text of the Thesis for awarding educational and scientific degree "Doctor of Philosophy";
2. Abstract of the Thesis both in Bulgarian and English;
3. Full text of the articles attached to the dissertation as an integral part of it in accordance with the requirements of ZRASRB and the Regulations for its implementation - three articles;
4. A reference for Toddor VeleV VeleV on fulfillment of the minimum requirements of the Institute of Information and Communication Technologies - BAS for awarding the educational and scientific degree "Doctor".
5. Order No. 254 from October 28, 2021 issued by IICT – BAS for withdrawing Toddor VeleV VeleV from part-time doctoral studies with right up for grant PhD degree when the Thesis is ready within a legal deadline.
6. Order No. 232 from October 01, 2025 issued by IICT – BAS for designation of Scientific Jury;

Scientific advisor of the PhD student is Prof. Nina Dobrinkova.

The dissertation is written on 197 pages and it consists of introduction, three chapters, main findings and conclusions, declaration of originality, eight appendices (totaling 59 pages), a list of references. The text is illustrated with 29 figures and 34 tables.

The objective of the dissertation is formulated as follows: to develop and to approve a model of a platform for modeling and automation of standardized information security management systems.

To achieve this goal, the following tasks have been formulated:

1. Research and analysis of the theoretical foundations of standardized information security management systems in selected aspects.

2. Analysis of the processes, requirements and characteristics of the platform for management and automation of standardized information security management systems.

3. Design of an optimal model of a platform for modeling and automation of standardized information security management systems and associated architecture.

I consider that the so formulated goal and tasks accurately reflect the main ideas realized in the dissertation. The relevance and significance of the results obtained are well presented in the main text.

The contributions of the dissertation are:

1. scientific: an algorithm and methodology for developing a platform model for modeling and automation of standardized information security management systems are proposed; an author's theory of a document matrix is presented as a basis for operational management of an organization or company.

2. scientific-applied: an analysis of information security management systems in selected aspects is presented; work processes and flows that are subject to automation are determined, defined and analyzed; the functional and non-functional requirements of user groups and information security standards are defined; the general characteristics of the system are identified using heuristic methods; a model of a complex platform for modeling and automation of standardized information security management systems is developed; a platform architecture is proposed in accordance with modern requirements for modularity, automation and compatibility with standards.

A number of three publications are attached to the dissertation, which reflect some of the scientific results. One of them is written by one author, one publication is in an international edition with impact rank, one publication is in an IEEE edition. It

can be concluded that the results obtained are recognized in scientific circles. One citation of a publication to the dissertation is provided.

The abstract has a volume of 41 pages (44 pages in Bulgarian). I consider that it accurately reflects the content of the dissertation.

Conclusion

I accept that the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for its implementation, the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions at BAS and the Regulations on specific conditions for acquisition of scientific degrees and for holding academic positions at the Institute of Information and Communication Technologies – BAS are met.

I give a positive assessment for the acquisition of the educational and scientific degree "Doctor" of Toddor Velev Velev.

I recommend to the esteemed Scientific Jury members to award the educational and scientific degree "Doctor" of Toddor Velev Velev in the scientific field: 4. Natural Sciences, Mathematics and Informatics, Professional field: 4.6 Informatics and Computer Science, doctoral program: Informatics.

October 30, 2025

Sofia

