O P I N I O N

by **Professor Lyubka Doukovska, PhD, DSc**
from the Institute of Information and Communication Technologies,
at the Bulgarian Academy of Sciences,
on the Thesis for awarding educational and scientific degree PhD,
under the Scientific Field: **4. Natural Sciences, Mathematics and Informatics**,
the Professional Area: **4.6. Informatics and Computer Sciences**,
the Scientific Specialty: **01.01.12. Informatics**

Author of the PhD Thesis: **Oleg Petrov Iliev**

PhD Thesis Title: **Methods and models for personalization of a thematic-oriented learning content**

In accordance with Order No. 210 from 02.12.2020 of the Director of the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences, I have been appointed as a member of the Scientific Jury regarding the PhD thesis of **Oleg Petrov Iliev** for awarding the 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 Scientific Specialty **01.01.12. Informatics**.

As a member of the Scientific Jury I have received:

1. Order No. 210 from 02.12.2020 of the Director of the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences, Academician Veselin Drenski.

2. Dissertation for the educational and scientific degree PhD.

3. Abstract of the dissertation for the educational and scientific degree PhD.

4. Copies of the publications included in the PhD thesis.

5. Reference to the implementation of the minimum requirements of the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences for obtaining the educational and scientific degree PhD, as well as other documents accompanying the procedure.

In order to form the final evaluation of the PhD thesis, the requirements of the *Development of Academic Staff Act in the Republic of Bulgaria* are implemented the specific requirements in the Act's Institutional Regulation shall be taken into consideration, where the respective norms are:

1. Pursuant to Art. 6 (3) of the *Development of Academic Staff Act in the Republic of Bulgaria*, PhD thesis should contain scientific or scientific-applied results, which represent an original contribution in science. The PhD thesis must indicate that the candidate has in-depth theoretical knowledge of the relevant specialty and ability for independent research.

2. According to Art. 27 (2) of the specific requirements in the Act's Institutional Regulation, PhD thesis should be presented in a form and volume corresponding to the specific requirements of the primary unit. The PhD thesis should contain: a cover page; content; introduction; exhibition; conclusion - a summary of the results obtained with a declaration of originality; bibliography.

The PhD thesis consists of 145 pages. Its structure includes an introduction, eight-point exhibition, the PhD thesis scientific contributions, conclusions, bibliography of 53 cited sources, list of figures, list of tables, list of publications on the topic of the PhD thesis, list of citations on the topic of the PhD thesis.

The aim of the PhD thesis is to create effective models and their further integration into a software environment offering structures and components ensuring granularity and resource reuse in a learning content repository. To achieve this aim, six tasks have been formulated.

I find that the aim and the problems formulated reflect the topicality and significance of the presented dissertation work, as well as the possibility to apply the obtained results in the modern e-learning environments.

The list of publications on the PhD thesis includes seven publications. Five of the publications are co-authored. All articles have been published in peer-reviewed scientific journals and papers in international scientific forums.

The list of citations on the PhD thesis includes three citations, and I assume that this number is until the submission of the documents and does not include new citations.

The data presented in this way give me reason to conclude that the study was done on its own and was provided with the necessary publicity.

I accept that the contributions so formulated could be considered to have scientific and common application. This separation would allow detailing the results obtained in

accordance with the specificity of their significance. Such defined contributions can be defined as enriching the existing scientific field with new knowledge.

The PhD abstract has a volume of 45 pages. It faithfully reflects the essence and content of the PhD thesis, including the purpose, subject, object and tasks of PhD thesis research and the ways of their realization.

In order to form the final evaluation of the PhD thesis, the requirements of the *Development of Academic Staff Act in the Republic of Bulgaria* and its Implementation Rules are to be taken into account, according to which I have the following remarks and recommendations:

1. The content of the dissertation does not meet the requirements of Art. 27 (2) of the *Development of Academic Staff Act in the Republic of Bulgaria*. The PhD thesis should contain a declaration of originality.

2. Style and punctuation errors are noted in the text of the PhD thesis.

3. The PhD student should direct his efforts to increase his contributions to reputable international publications.

In conclusion, I accept that the requirements of the *Development of Academic Staff Act in the Republic of Bulgaria* and the specific requirements in the Act's Institutional Regulations for its implementation, the Rules for the conditions and the order for acquiring academic degrees and for the occupation of academic positions in the Bulgarian Academy of Sciences and the Rules for the specific conditions for acquisition of academic degrees and occupation of academic positions in the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences are fulfilled. After my introduction to the dissertation thesis and its publications, an analysis of their significance and the contributions they make, I give my positive assessment and I recommend to the Honorable Jury to award the educational and scientific degree "Doctor of Philosophy" (PhD) to **Oleg Petrov Iliev** in the Scientific Field **4. Natural Sciences, Mathematics and Informatics**, the Professional Area **4.6. Informatics and Computer Sciences**, the Scientific Specialty **01.01.12. Informatics**.

21.12.2020   Signature:

Sofia

                                                    /Prof. Lyubka Doukovska, PhD, DSc/