

OPINION

in a competition for the academic position

"Associate Professor"

in professional field 1.3. Pedagogy of Education in ... (Methodology of Education in Informatics and Information Technologies), announced in State Gazette, issue 98 of 19.11.2024.

for the needs of Paisii Hilendarski University of Plovdiv,

Faculty of Mathematics and Informatics,

The opinion was prepared by Professor Dr. Kosta Andreev Garov, Paisii Hilendarski University of Plovdiv, as a member of the scientific jury for the competition in professional field 1.3. Pedagogy of Education in... **(Methodology of Education in Informatics and Information Technologies)**, as per Order No. RD(PД)-22-444/18.02.2025 of the Rector of the University of Plovdiv.

For participation in the announced competition **only one candidate** - Chief Assistant Dr. Elena Hristova Todorova - has submitted documents.

I. General description of the submitted materials

1. Application details

In my capacity as reviewer, I received and reviewed the documents submitted by the applicant for the competition. I established the regularity of the documents submitted by the candidate for the competition and that they comply with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Rules implementing the Law on the Development of Academic Staff in the Republic of Bulgaria and the Regulations on the Conditions and Procedures for the Acquisition of Research Degrees and the Occupation of Academic Positions at Paisii Hilendarski University of Plovdiv.

For participation in the competition the candidate Chief Assistant Dr. Dr. Elena Todorova has submitted a list of **45** titles, including **25** publications in Bulgarian and foreign scientific journals and scientific forums, **2** monographs, **8** textbooks and **9** teaching aids. The total number of the candidate's publications is impressive - **2** monographs, **39** scientific publications, **11** textbooks and **17** teaching aids. Other documents in the form of memos and employer's certificates supporting the candidate's achievements and regularity of the competition have also been submitted.

2. Details of the applicant

Elena Todorova has a solid background in mathematics and computer science. She graduated in 2005 from Paisii Hilendarski University of Plovdiv, Faculty of Mathematics and Informatics, majoring in Mathematics and Informatics. In the period 2005-2008 she continued her studies at the Faculty of Mathematics and Informatics of the University of Plovdiv, specialty "Software Technologies" and graduated with a Master's degree with the qualification "Computer Scientist". In 2010 she was enrolled in a full-time PhD program at the Faculty of Mathematics and Informatics at the University of Plovdiv in the Field of Higher Education 1. Pedagogical

Sciences; Professional field 1.3. Pedagogy of Education in ..., Doctoral Program "Methodology of Education in Informatics and Information Technologies", and in 2012 she transferred to part-time studies after winning a competition for a full-time assistant professor. In the period 2006-2010 she was a lecturer in the subjects "Informatics" and "Information Technologies" at P. K. Yavorov Secondary Comprehensive School, city of Plovdiv. In 2005-2012, she was a part-time assistant at the University of Plovdiv, teaching undergraduate and graduate students in the following main subjects: Computer Science School Course, Introduction to Information Technology, Information Technology School Course, Information Technologies, Integrated Computer Science Workshop, Information Technology in Education, etc. As mentioned above, in 2012 E. Todorova won a competition for a full-time assistant professor, and since 2014 she has been a chief assistant professor. She teaches: Introduction to Information Technology, Informatics School Course, Audiovisual and Information Technologies in Education, Integrated Computer Science Workshop, Accounting and Accounting Information Systems, etc. She has very good theoretical and practical background in computer science and information technology, teamwork skills, technical and computer skills.

Elena Todorova's professional realization logically led her to develop a dissertation in the field of teaching methodology in informatics and information technologies. The experience accumulated over the years and participation in scientific and science-applied projects justify the choice of the dissertation topic and are a prerequisite for the significant scientific and science-applied results obtained in the work. The chosen topic of the dissertation "Reflection in Information Technology Education" is relevant for the teaching practice of informatics and information technology. Currently, educators have the difficult task of finding a balance between traditional teaching and the application of IT in pedagogical science. The application of elements from philosophy and psychology such as **reflection** and **synergetic** can be essential for solving this task. The main aim of this dissertation research is to create a reflexive model for the formation of key competences through IT teaching and to investigate its applicability and effectiveness in pedagogical practice.

3. General description of the candidate's scientific works and achievements

The scientific works submitted by the candidate for participation in the competition **meet** the minimum national requirements (under Art. 2b, para. 2 and 3 of of the Law on the Development of Academic Staff in the Republic of Bulgaria) and respectively the additional requirements of the University of Plovdiv for the academic position of **Associate Professor** in scientific field 1. Pedagogical sciences, professional field 1.3. Pedagogy of Education in... (Methodology of Education in Informatics and Information Technology). The following conclusions can be drawn from the reference on the fulfilment of the minimum national requirements by the candidate. In indicator **A** of the requirements, with the minimum number of **50** points required, Chief Assistant Dr. Elena Todorova has **50** points. For indicator **C**, with a minimum of **100** points, the candidate has **100** points. For indicator **D**, with a minimum of **200** points, Chief Assistant Dr. Elena Todorova has **225** points. In indicator **E** with a minimum of **50** points, Chief Assistant Dr. Elena Todorova has **510** points. The candidate's total number of points is **958** and **exceeds** significantly the minimum number of points required for the academic

position of Associate Professor in the field of higher education 1. Pedagogy, professional field 1.3. Pedagogy of Education in... - **400 points**.

The scientific works and achievements of the candidate are mainly in the field of methodology of informatics, information and communication technologies education in secondary and higher education in Bulgaria. The scientific works presented by Chief Assistant Dr. Elena Todorova for participation in the competition **do not repeat** those from previous procedures for acquiring a scientific title and academic position. No **plagiarism** has been proven in the scientific works submitted for the competition. She has complied with the rules of scientific ethics - she has not published the same manuscript in different places, she **has not plagiarised**, she has not used the **copy-paste** technique in the publications submitted for peer review.

4. Characteristics and evaluation of the candidate's teaching activity

From the submitted documents it can be seen that almost all of Elena Todorova's professional experience consists in teaching. She has conducted training in various subjects at secondary school, university and teacher training department.

The reviews for the teaching activity of Chief Assistant Elena Todorova are very good. They are confirmed by the fact that she has regularly improved her qualification and advanced in her academic career.

5. Scientific and science-applied achievements of the candidate contained in the competition materials

Chief Assistant Dr. Elena Todorova has indicated **5** groups of scientific contributions from her scientific activity. They can be divided as follows:

1. **Design and development of didactic materials for student learning;**
2. **Formation of reflective skills in information technology and informatics education at school;**
3. **Formation of reflective skills in the training of informatics and information technology teachers;**
4. **Pedagogical strategies in teaching;**
5. **Textbooks for teaching students Information Technology and Computer Modelling and Information Technology.**

The reviewer **acknowledges** the above contributions and considers contributions 1, 3 and 5 to be of the highest weight.

The results of the candidate's research have found resonance in the specialized scientific literature - she has submitted **57 noted citations** of her publications.

6. Critical comments and recommendations.

I have no critical remarks. The scientific output submitted for the competition does not contain any significant weaknesses that would detract from its merits. As a recommendation, I would point out that the candidate should publish more **independent** research and possibly more publications in scientific journals **abroad**.

7. Personal impressions of the candidate.

My personal impressions of Elena Todorova are very good. I have known the candidate for associate professor for more than 20 years. I have taught her at the Faculty of Mathematics and Informatics of the University of Plovdiv. As a student, she was inquisitive, active and creative in her classes. I am the supervisor of the dissertation developed by Elena Todorova. I will point out that during the four-year period of the PhD, she strictly followed the individual study plan and my instructions. The result was a dissertation research with very positive theoretical and practical results.

I, Assoc. Prof. Aneva and Chief Asst. Elena Todorova actively participated in the realization of a very important project both for our educational system and for the whole country - the writing of textbooks and teaching aids on information technology for grades 5-10 of Bulgarian school. Elena Todorova has a significant contribution to the quality of writing these books.

She is now a respected teacher, a scholar of high professionalism and a loyal colleague.

8. Conclusion on the application

Having read the materials and scientific works submitted in the competition and on the basis of the analysis of their significance and the scientific and science-applied contributions contained therein, **I confirm** that the scientific achievements meet the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Rules for its application and the relevant Regulations of the Paisii Hilendarski University of Plovdiv for the candidate to hold the academic position of Associate Professor in the scientific field and professional field of the competition. In particular, the candidate **satisfies the minimum** national requirements in the professional field and **no plagiarism has been found** in the scientific works submitted for the competition.

II. GENERAL CONCLUSION

All of the above is sufficient reason to give a **positive conclusion** for the choice of the Chief Assistant Dr. Elena Todorova to the academic position of "Associate Professor" at Paisii Hilendarski University of Plovdiv in the scientific specialty **Methodology of Education in Informatics and Information Technology**, in the professional field: 1.3 Pedagogy of education in ..., field of higher education: 1. Pedagogical sciences.

I recommend to the esteemed Scientific Jury, appointed for the announced competition, to propose to the Honorable Faculty Council of the Faculty of Mathematics and Informatics at Paisii Hilendarski University of Plovdiv **to elect** Chief Assistant Dr. Elena Hristova Todorova for the **academic position of Associate Professor**.

31.03.2025

Reviewer:

/Prof. Dr. Kosta Garov/