

## OPINION

in relation to a competition for the academic position “Associate Professor” in the  
Field of Higher education 1. Pedagogy of training in...  
for the needs of PU “Paisii Hilendarski”

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### 1. General presentation of the procedure.

This opinion is prepared in accordance with Order № ПД-22-444/18.02.2025 of the Rector of PU “Paisii Hilendarski”, in compliance with the announcement in State Gazette issue 98/19.11.2024 in relation to the occupation of academic position “Associate Professor” in the Field of higher education 1. Pedagogical sciences; Professional field 1.3. Pedagogy of Informatics and Information Technologies. The only candidate in the competition is Assist. Prof. Elena Hristova Todorova, PhD. No procedure irregularities were identified. As a member of the Scientific Jury I have received an access to the documents of Assist. Prof. Elena Hristova Todorova.

### 2. General presentation of the candidate and the presented materials

The documents and materials of the only candidate in the competition have been carefully presented and enable an objective and complete evaluation in accordance with the requirements of the National Acts (ЗПАЧБ) and the Regulations for the corresponding implementation.

Assistant Professor Elena Hristova Todorova graduated from secondary school in 2001 at the Hristo Prodanov Secondary School in Karlovo with a degree in Management. In 2005, she graduated from Plovdiv University "Paisii Hilendarski" with a degree in Software Technologies, and in 2014, she defended her dissertation at Plovdiv University on the topic "Reflection in Information Technology Education". She was a teacher of informatics and information technologies, and is currently a senior assistant professor at Plovdiv University "Paisii Hilendarski".

From the materials provided to me, the following main points stand out:

**2.1.** Assist. Prof. Elena Todorova, PhD has 26 publications in scientific editions, which are indexed and referred in various data bases. In addition, the monograph "Reflection in the Training of Teachers of Informatics and Information Technologies", the book "Reflection in the Training of Information Technologies at School", eight textbooks and nine teaching aids are attached.

**2.2.** Assist. Prof. Elena Todorova, PhD has 57 citations in editions of repute.

**2.3.** The results of the scientific works could be described according to groups of indicators in the next table:

Group of Indicators	A	B	C	D	E	F	Total number of points
Required minimum number of points for acquiring the	50	-	100	200	50	-	500

academic position of “Associated professor”							
Real number of points	50	-	100	225	510	73	<b>958</b>

It is noticed from the above table that Assist. Prof. Elena Todorova, PhD exceeds the minimal national requirements for the academic position “Associated Professor”

### **3. General characteristics of the candidate’s contributions**

The main scientific interests of Assistant Professor Dr. Todorova are in the field of teaching methodology in informatics and information technologies. The specific results can be summarized in the following areas:

#### **3.1. Planning and developing didactic materials for teaching students.**

In the researches in this field analysis is performed on problems in teaching Informatics and Information Technology in school. Different classifications for the problems are suggested based on the specifics of the learning content. Multiple examples and problems are described aiding the formation of knowledge, skills and competences in the students’ learning process.

#### **3.2. Formation of reflective skills in teaching Information Technology and Informatics in school.**

A major emphasis in the papers on this field are the methodological approaches for forming and developing reflection in teaching students. Directions are drawn out for applying the reflective approach in teaching Mathematics, Informatics and Information Technology. A methodological approach is suggested for obtaining skills for reflective analysis and self-evaluation through application of the adapted ALACT model in teaching Informatics and Information Technology. The developed technological model and methodology for formation of reflective skills are tested with students in grades 5, 6 and 7 in schools.

#### **3.3. Formation of reflective skills in educating teachers in Informatics and IT.**

The research in this field is a continuation and development of the research from the dissertation paper of Assist. Prof. Todorova, PhD regarding forming and developing reflection in teaching.

Subject of the research in the released monograph Reflection in educating teachers in Informatics and Information Technology is the process of forming reflective skills among students who are learning to become teachers in Informatics and Information Technology. Some methodological approaches are suggested for forming reflective skills among teachers in teaching 3/5 Informatics and IT. Sample problems are developed which follow the steps of the adapted ALACT model for forming reflective skills among students – future teachers.

#### **3.4. Methodological approaches for teaching Informatics and Information Technology in school.**

In the papers in this field are suggested methodological approaches directed towards creating suitable environment for a more effective acquisition of skills and forming cognitive skills in learning Programming. The block-programming language Scratch’s main

possibilities and characteristics are discussed as well as its application in teaching Programming in the primary school. Some methodological aspects of teaching Programming in the junior high school are discussed having to do with developing algorithmic skills among students through using a block programming language and a script text language. A methodological approach is presented for teaching Programming in school by simultaneous use of the languages Python, Java and C#.

### **3.5. Pedagogical strategies in education.**

A main emphasis in the papers in this field is the development and elaboration on the students' practical and application skills in the area of Information Technology as well as forming algorithmic skills in teaching Programming by using the capabilities of Visual Basic for Applications and Excel. A set of problems is presented along with their solutions which are realized with the help of the integrated programming means in Excel.

### **3.6. Training manual for teaching Information Technology students for teaching Information Technology students.**

The presented textbooks and teaching aids are intended for teaching students in Information Technology and Computer Modeling and Information Technology in different grades in Bulgarian schools. The learning content corresponds to the curriculum by the Ministry of Education and Science.

## **4. Judgment of the candidate's personal contribution**

There is no doubt that the obtained results are personal achievements of the candidate. As quantity and quality they are fully sufficient to satisfy the requirements of the law and the regulations for the academic position "Associate Professor".

## **5. Critical remarks**

I have no critical remark.

## **6. Conclusion**

After reviewing the materials and scientific works presented for the competition and analyzing their significance, I find that Assist. Prof. Elena Hristova Todorova, PhD satisfies the requirement conditions and criteria of the Act on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations on its implementation, as well as the Regulations for the conditions and order for acquiring academic degrees and academic positions at University of Plovdiv. Therefore, **I give my strictly positive evaluation** of the conducted study and I would like to propose to the honourable members of the Scientific Jury to support this application and to submit a proposal for the election of Assist. Prof. Elena Hristova Todorova, PhD to occupy the academic position "**Associate Professor**" in the Field of higher education **1. Pedagogical sciences Professional field 1.3. Pedagogy of Informatics and Information Technologies.**

29. 03. 2025  
Beli Osam, Bulgaria

Signature:  
(Prof. Veselin Nenkov, PhD)