

OPINION

by **Irina Alexandrovna Radeva, PhD - Associate Professor at the Institute of Information and Communication Technologies**

on the materials submitted for participation in the competition for the academic position
"Associate Professor"

at Plovdiv University "Paisii Hilendarski"

in the field of higher education 4. Natural Sciences, Mathematics and Informatics,
professional field 4.6. Informatics and Computer Sciences (Informatics - Databases)

Competition for "Associate Professor", announced in State Gazette, issue 98/19.11.2024 and on the website of Plovdiv University "Paisii Hilendarski" for the needs of the Department "Computer Systems" at the Faculty of Mathematics and Informatics, where **the candidate is Chief Assist. Georgi Nikolov Cholakov, PhD** from the Department of Computer Systems, Faculty of Mathematics and Informatics.

1. General presentation of the procedure and the candidate

By order № RD-22-77 from 17.01.2025 of the Rector of Plovdiv University "Paisii Hilendarski" (PU) Prof. Rumén Mladenov, PhD, I have been appointed as a member of the scientific jury for the competition for the academic position **"Associate Professor"** at PU in the field of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.6. Informatics and Computer Sciences (Informatics - Databases), **announced for the needs of the Department of Computer Systems at the Faculty of Mathematics and Informatics**. One candidate has submitted documents for participation in the competition - Chief Assist. Georgi Nikolov Cholakov, PhD from the Department of Computer Systems, Faculty of Mathematics and Informatics at PU.

The submitted materials comply with the Regulations for the Development of the Academic Staff at PU and include the following documents: application form to the Rector for admission to the competition; CV in European format; diploma for higher education with obtained educational-qualification degree "Master"; diploma for educational and scientific degree "Doctor"; list of all scientific works; list of scientific works for participation in the competition; copies of scientific works; list of all citations; list of citations for participation in the competition; minimum national requirements; reference for compliance with minimum national requirements; reference for compliance with additional requirements of FMI; annotations of scientific works for participation in the competition in Bulgarian and English; self-assessment of contributions in Bulgarian and English; declaration of originality and authenticity of attached documents; certificate of work experience; documents for teaching work; documents for research work.

Georgi Cholakov was born in 1975 and is an alumnus of Plovdiv University "Paisii Hilendarski", where he graduated in mathematics and informatics in 1999. In 2013, he defended his doctoral degree in the field of informatics and computer sciences. From 2005 until today, he works as a Chief Assist. at the university. He has excellent command of English, and also has basic knowledge of German and Russian.

2. General characteristics of the candidate's activity

Chief Assist. Georgi Cholakov, PhD has over 20 years of teaching experience at PU, from honorary assistant to Chief Assist.. He teaches the discipline "Databases" in four specialties (180 hours lectures and 500 hours exercises annually), as well as three disciplines in the master's program "Software Technologies". He is co-author of a textbook, develops test materials for e-learning and participates in the composition of training courses. He has supervised over 30 graduates, reviewed over 20 diploma theses and actively participates in state examination committees.

Assessment of the scientific and scientific-applied activity of the candidate

For participation in the competition, Chief Assist. Georgi Cholakov, PhD has submitted a total of 14 publications that have not been presented for obtaining the educational and scientific degree "Doctor" and for holding the academic position "Chief Assist.". The analysis of the publications shows:

- 1 publication is a monograph in Bulgarian [№ 12 from the list of scientific works for participation in the competition];
- 5 publications are in journals referenced in WoS and Scopus [№№ 1, 2, 3, 4, 5];
- 6 publications are in proceedings of international conferences referenced in Scopus [№№ 6, 7, 8, 9, 10, 11];
- 1 publication is a textbook [№ 13];
- 1 publication is a book based on a defended dissertation thesis for awarding the educational and scientific degree "doctor" [№ 14].
- 9 publications are in English [№№ 1, 2, 3, 6, 7, 8, 9, 10, 11];
- 5 publications are in Bulgarian [№№ 4, 5, 12, 13, 14];
- 10 publications are co-authored [№№ 1, 2, 3, 4, 5, 6, 7, 8, 10, 13];
- 4 publications are independent [№№ 9, 11, 12, 14].

The publications are in the field of informatics with a focus on e-learning, databases, software agents and artificial intelligence, which corresponds to the profile of the competition. The candidate demonstrates both ability for independent scientific work and for teamwork.

Contributions (scientific, scientific-applied, applied) and citations

The contributions of Chief Assist. Georgi Cholakov, PhD are in three main directions:

- In the direction of "databases", a hybrid architecture (relational and document databases) has been developed for extracting and analyzing metadata from the internet [4, 5]. Methods for analyzing educational data [8, 9] have been developed and a textbook for the discipline has been created. The contributions here are scientific-applied.
- In the direction of "agent-oriented architectures", the contributions are scientific and scientific-applied. Intelligent software agents have been developed and their integration with large language models has been achieved [1, 3]. The research is summarized in a monograph presenting a comprehensive concept for an extended architecture of an educational portal.
- In the direction of "e-learning", the contributions are mainly applied, aimed at creating intelligent components for e-learning and methods for analyzing the educational process [10, 12].

The candidate's contributions have a clearly expressed scientific-applied and applied character with a focus on the practical application of modern information technologies in

education. His personal contribution is indisputable, evident from his independent publications and his leading role in collective works.

The candidate has presented a list of a total of 18 noted citations of 8 publications, of which 11 are of 6 publications for participation in the competition, including 7 in editions referenced in Scopus and WoS. The citations show that the candidate's scientific results have received international recognition. The citations are from foreign authors and Bulgarian scientists, predominantly in the field of e-learning and information technologies.

The candidate Chief Assist. Georgi Cholakov, PhD has submitted a list of 3 research projects with the "Scientific Research" Fund and 2 international projects in which he has participated.

The submitted reference for fulfillment of the minimum national requirements and the minimum requirements of FMI by Chief Assist. Georgi Cholakov, PhD certifies that he meets the minimum requirements for indicators A, C, D, E and F for 4. Natural Sciences, Mathematics and Informatics, professional field 4.6. Informatics and Computer Sciences.

3. Critical remarks and recommendations

I have no critical remarks regarding the documents submitted by the candidate for the competition. The materials are prepared precisely and give a clear picture of the candidate's research and teaching activities.

I would recommend the candidate to expand his research in the field of integration of large language models in educational systems, as this is a promising direction with potential for significant scientific and practical results. It would also be useful to increase the number of publications in international journals with impact factor, which would lead to wider dissemination of scientific results in the international scientific community.

C O N C L U S I O N

The documents and materials submitted by Chief Assist. Georgi Nikolov Cholakov, PhD comply with all requirements of the ADASRB, the Regulations for its Implementation and the respective Regulations of PU "Paisii Hilendarski".

The candidate has submitted the required number of scientific works that do not repeat those submitted for the defense of PhD degree and holding the position of "Chief Assist.". His scientific works contain original contributions that have received international recognition. The theoretical developments have practical applicability in teaching work. The scientific and teaching qualification of the candidate is undoubted.

The achieved results in teaching and research activities fully comply with the minimum national and additional requirements of FMI.

I give my positive assessment and recommend to the Scientific Jury to propose to the Faculty Council of FMI the election of Chief Assist. Dr. Georgi Nikolov Cholakov to the academic position of "Associate Professor" at PU "Paisii Hilendarski" in the field of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.6. Informatics and Computer Sciences (Informatics - Databases).

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Prepared the statement:

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