

REVIEW

for **Chief Assist. Valentina Todorova Terzieva-Bogoycheva, PhD**,
in a competition for the academic position of "Associate Professor"
in the professional field 4.6 Informatics and Computer Science, specialty "Informatics."

Reviewer: Acad. Ivan Petkov Popchev

By order № 151 Sofia, 14.07.2025 of the corresponding member Sv. Margenov, in connection with the announced competition for the **academic position "Associate Professor"** in SG no. 40/16.05.2025 in the professional field 4.6 Informatics and Computer Science, specialty "Informatics," I have been appointed a Scientific jury member.

As a reviewer, I have received all included in the application 15 documents to the Director of ICT-BAS for admission to participate in the competition.

According to ADASRB, Regulation of application of the Regulatory of the specific conditions for academic scientific degree and holding academic positions at ICT, candidates for associate professor must meet certain conditions and requirements.

Art. 24 (1) The applicants to occupy the academic position of Associate Professor must meet the following conditions:

1. to have been awarded the educational and scientific degree of Doctor...;
2. for a minimum two years:
 - a. to have occupies the academic position of Assistant, Chief Assistant;
3. to have presented a published monograph or equivalent publications in specialized scientific issued or ..., which do not reproduce those presented for awarding the educational and scientific degree of Doctor and for awarding of the scientific degree of Doctor of Science.
4. to meet the minimum national refinements under Art.2b, Para. 2 and 3, respectively the requirements under Art. 2b, Para. 5;
5. to have no plagiarism proven as per the legally established order in the scientific works.

(2) The academic position of Associate Professor shall be occupied on the basis of a competition and election.

(3) A competition for occupying the academic position of Associate Professor shall be opened, if it is possible the relevant teaching and research load to be provided, according to the relevant rules of procedure of the higher school or scientific organization.

Art. 26 (1) The candidates shall submit a reference on the fulfillment of the minimum national requirements under Art. 2b, Paras. 2 and 3, the requirements under Art. 2b, Para. 5,

respectively, and a reference of the original scientific contributions to which shall be attached the relevant evidence laid down in this Act, in the Regulations for its implementation, and the Regulations of the higher schools and of the scientific organizations.

Chief Assist. Valentina Todorova Terzieva-Bogoycheva, PhD **meets the requirements of Art.24 (1).1** as she is a “Doctor”. She holds Diploma No. № 001581, issued on 31.10.2023.

Chief Assist. Valentina Todorova Terzieva-Bogoycheva, PhD, **meets the requirements of Article 24 (1).2a**, as evidenced by an official letter No. 334/06.06.2025 from IICT, certifying that Valentina Terzieva-Bogoycheva, as a Chief Assistant, has 9 years and 7 months of experience.

Chief Assist. Valentina Todorova Terzieva-Bogoycheva, PhD, **meets the requirements of Art. 24 (1).3** as she has presented 9 publications in specialized scientific issues (B1, B2, B3, B4, B5, B6, B7, B8, and B9), which do not repeat those presented for obtaining the educational and scientific degree “Doctor”.

The reviewer considers that Chief Assist. Valentina Todorova Terzieva-Bogoycheva, PhD, **meets the requirements of Article 24(1).4**, as she fulfills **the minimum national requirements** under Article 2b, paragraphs 2 and 3, as well as the requirements under Article 2b, paragraph 5, and **the regulations of the specific conditions of IICT**, where at a minimum requirement of 500 points, she presents a 1227 points. According to **Article 24(1).5**, **no plagiarism has been proven in her scientific works under the legally established procedure**.

Summaries of scientific publications (33 pieces, 30 pages) have been presented in Bulgarian and English.

In the “**Project Participation Report**,” there are 12 projects, including 3 international and 9 national, of which 5 are funded by the “Bulgarian National Science Fund”. Almost all projects in which the candidate has participated are related to research in the field of ICT in education, which is reflected in a large part of the publications submitted for the competition.

A “**List of publications for participation in the competition for the Academic Position of Associate Professor**” has been presented, which includes **33 publications**.

A brief analysis of the presented 33 publications in English shows the following:

- **16 publications** are in series with an **SJR** (№ B1, B2, B3, B4, B6, Г1, Г2, Г3, Г4, Г5, Г6, Г7, Г8, Г9, Г10 and Г23).
- **16 publications** are in conference proceedings (№ B6, B7, B8, B9, Г11, Г12, Г13, Г14, Г15, Г16, Г17, Г18, Г19, Г20, Г21 and Г22).
- **1 publication** is a **book chapter** indexed in Scopus (№ Г24)

One publication is **self-authored**; all other publications are co-authored.

In 22 of the publications, Dr. Valentina Terzieva is the first co-author.

Chief Assist. Valentina Terzieva, PhD has presented two reports for **scientific publications**, based on the data entered in SONIX. E1.1a “Scientific publications in publications indexed in WoS, Scopus ERIH+ (published)” for the period 2004-2025 shows 65 publications, 6 of which are with IF and 32 are with SJR. In E1.3a: “Scientific publications in publications

not indexed in WoS, Scopus, ERIH+ or other profiled databases, thematic collections, incl. collections of international and national scientific forums (published)” for the period 2004–2025, another 61 publications are presented. These data demonstrate the commitment of the candidate to sustainability in their scientific activities.

In the “**List of citations**” (A1.2.1. “Citations in WoS or Scopus” and A1.2.2a. “Citations in other international publications” from SONIX), for the period 2004–2025, a total of 407 citations are included, of which 266 citations are in documents indexed in the global databases Web of Science or Scopus, for 52 publications and also 141 citing sources in other international publications for 47 publications.

In the competition documents, there is a “**Reference for the original scientific and applied scientific contributions**” (8 pages) in the works submitted for participation in the competition for the academic position of “Associate Professor”.

According to the “Reference”, the presented works contain research, results, and contributions in the following thematic areas:

1. Information and communication technologies in education – 14 publications (№ B1, B6, B7, B8, B9, Г1, Г4, Г5, Г6, Г13, Г15, Г16, Г18, and Г19).
2. Technological support for the education of students with specific learning difficulties (dyslexia) – 5 publications (№ B2, B3, B4, B5, and Г24).
3. Educational games – 6 publications (№ Г2, Г3, Г7, Г11, Г17, and Г23).
4. Intelligent educational environments – 9 publications (№ Г8, Г9, Г10, Г12, Г14, Г20, Г21, Г22, and Г24).

For each thematic area, key highlights and a summary are provided.

The **scientific contributions and applied scientific contributions** have been formulated with the corresponding publications, without being defined as original.

According to Article 26(1) of the Academic Staff Development, a “**reference for the original scientific contributions**” with the corresponding evidence has not been provided.

The **contributions** of Chief Assistant Valentina Terzieva, PhD, assuming equal participation in the works, can be summarized with the corresponding publications and number of citations as follows:

1. Utility function of ICT, technological tools, and e-learning resources. (№ B9/0, Г1 – SJR/2, Г5 – SJR/3, Г13/0, Г16/2)
2. Model of a computer-based personalized e-learning environment with tools that assist teachers in teaching students with dyslexia. (B2 – SJR/9, B3 – SJR/0)
3. Multi-agent platform for creating and using e-learning resources intended for students with dyslexia. (№ B4 – SJR/10, B5 – SJR/1)
4. Framework for personalization of educational games based on a user model. (№ Г7 – SJR/8, Г23 – SJR/5)

5. Model of a modular structure of a smart classroom and concept of a centralized portal for access to e-learning resources. (№ Г8 – SJR/1, Г12/24, Г14/2, Г20/8, Г24/2)
6. Model of knowledge in an intelligent system for personalized learning. (№ Г10 – SJR/8, Г22/1)
7. Architecture of a conceptual model of an intelligent educational environment. (№ Г9 – SJR1, Г14/2, Г21/2)

A summarized “**scientometric profile**” of Chief Assist. Valentina Terzieva, PhD is to be constructed from the respective scientific databases:

- Web of Science – 40 documents, 92 citations (without self-citations), h-index – 6;
- Scopus – 50 documents, 237 citations, h-index – 8;
- Google.Scholar – 111 documents, 584 citations, h-index – 12, i10 index – 16;
- ACM Digital Library – 7 documents;
- IEEE Explore – 8 documents;
- Orcid.org – 40 documents;
- Researchgate.net – 87 documents, 386 citations, h-index – 10, 333,2 Research Interest Score, 18 362 reads, and 115 recommendations.

The “**scientometric profile**” demonstrates successful research activity and recognition within the national and international scientific communities. The **scientometric profile** should be the subject of self-analysis and a sufficient basis for further publication efforts in journals with **IF (Q1, Q2)**.

I have known **Dr. Valentina Terzieva as a productive researcher and project member** since 1996, as a programmer and research associate at ICCS – BAS, and also from my participation as a member of the jury for the competition for chief assistant at IICT – BAS in 2024.

The scientific activities of Dr. Valentina Terzieva also include public appearances to promote scientific achievements. She participated as an **invited speaker** at the XV National Conference on e-Education: “Digital Innovations in Support of e-Education” on 24.10.2019 (<https://www.capital.bg/event/142-xv-natsionalna-konferentsiya-po-e-obrazovanie/>). She also was a **consultant in a national study** commissioned by the Ministry of Education and Science in 2020, for the work on which, gratitude is expressed to her (https://ire-bg.org/wpsite/wp-content/uploads/2020/11/Otsenka-vazdeystviето-na-ORES_IIO.pdf – p. 9).

I would like to suggest to the Chief Assistant Dr. Valentina Terzieva to systematize her research on ICT in education in a monograph with the working title „**Intelligent Classroom: results and challenges**“.

CONCLUSION

All requirements, conditions, and criteria according to ADASRB, RAADASRB, and the Regulations of the specific conditions of IICT are fulfilled, and I give a categorically **positive conclusion** for the election of Chief Assistant Valentina Todorova Terzieva-Bogoycheva, PhD in a competition for the academic position of "Associate Professor" in the professional field 4.6 Informatics and Computer Science, specialty "Informatics".

I propose that the Scientific Jury unanimously vote on a proposal to the Scientific council of the IICT-BAS to elect Chief Assistant Valentina Todorova Terzieva-Bogoycheva, PhD, for the academic position of "Associate Professor" in the professional field 4.6 Informatics and Computer Science, specialty "Informatics".

25.07.2025 г.

Review

