REVIEW

by Prof. Stanislav Denchev Simeonov, PhD

Burgas State University "Prof. Dr. Asen Zlatarov",

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on the application package submitted for participation in a competition for the academic position

of "Associate Professor"

in the field of Higher education "**5. Technical Sciences**",

Professional field: "**5.3. Communication and Computer Technology**",

Scientific speciality "**Platform-based Design**",

of the **Faculty of Technical Sciences**

at the **Burgas State University "Prof. Dr Asen Zlatarov"**,

The competition for associate professor is announced in the State Gazette, issue 89/24.10.2025 and on the website of Burgas State University "Prof. Dr. Asen Zlatarov", for the needs of the Department of "Computer Systems and Technologies" at the Faculty of Technical Sciences, BSU "Prof. Dr. Asen Zlatarov."

Candidate: Chief Assistant Professor Radovesta Todorova Stewart, PhD

1. General position and biographical data

The only candidate in the announced competition for the academic position of "**Associate Professor**", Professional field 5.3 "Communication and Computer Engineering" is Chief Assistant Prof. Radovesta Todorova Stewart, PhD. She is a lecturer at the Faculty of Technical Sciences of Burgas State University "Prof. Dr. Asen Zlatarov".

Chief Assistant Prof. Radovesta Stewart, PhD graduated from Burgas Free University in 2013.

In 2020, Chief Assistant Prof. Radovesta Stewart, PhD defended her PhD thesis in the field of Information Technologies, Digitalization of Cultural Heritage.

She has held the position of Chief Assistant Professor since 2021. She has worked as:

- Young Scientist under the UNITe project – Universities for Science, Informatics and Technologies in e-Society, BG05M2OP001-1.001-0004 – 2018 – 2019;
- Recognized Scientist under the UNITe project – Universities for Science, Informatics and Technologies in e-Society, BG05M2OP001-1.001-0004 – 2021 – 20124.

2. General description of the materials presented

Art. 29 item 3 of the Law on the Promotion of Scientific Research and Development of the Republic of Bulgaria requires the candidate in the competition to have a "published monographic work or to have presented equivalent publications in specialized scientific publications. In his documents, the candidate has presented for participation in the competition a total of 22 scientific publications, 1 monograph and 1 book published on the basis of a defended PhD - thesis, which fully correspond to the thematic area of this competition. The scientific publications can be described as:

- 17 scientific reports in collections indexed in Scopus and/or Web of Science;
- 1 article in a scientific journal;
- 4 reports in collections of peer-reviewed reports that are not indexed in global databases of scientific literature.

Chief Assistant Stewart PhD, has provided a list of a total of 23 projects, including 10 international projects funded under the European programs Horizon, InterReg, and Erasmus.

The scientific production presented in the competition is summarized in Table 1.

Table 1. Scientometric indicators.

Metrics	Content	Requirements for AD "Associate Professor"	Done by the candidate
A	Thesis for ESD PhD	50	50
Б	Thesis for SD Doctor of science"	-	-
B	Habilitation work - scientific publications (not less than 10) in publications that are referenced and indexed in world-renowned databases with scientific information	100	100
Г	Sum of indicators 5 - 11	300	318,87
	Scientific publications in publications that are referenced and indexed in world-renowned databases of scientific information		426,66
	Scientific publications in non-refereed peer-reviewed journals, with scientific reviewing or in edited collective volumes		134,03
Д	Sum of indicators 12 – 15	100	210
E	Sum of indicators from 16 to the end	100	490

The provided table indeed demonstrates that the candidates' scientific and publication materials significantly exceed the minimum requirements for the academic position of "Associate Professor".

3. Impact of the candidate's scientific publications in the scientific community (known citations)

The impact of the candidate's scientific works is related to the significance of the work topic and the contribution to their content. For the most part, the developments in the materials submitted for the competition advocate an innovative scientific approach to a solution.

A bibliographic reference of 21 open citations of the candidate's works is presented with the materials for the competition. These data are convincing that the contributions achieved in the candidate's work have found sufficient reflection in the scientific community.

I did not find any evidence of plagiarism.

4. Overview of the content and results in the presented papers

4.1. Digitization of cultural heritage

This group of scientific works includes the monograph on the digitization of Bulgarian cultural heritage, as well as the published book on this topic. This thematic area unites works in which the digitization of cultural heritage is considered comprehensively as a policy, standards, models and real processes in institutions.

4.2. Ontologies, semantic networks and digital libraries

Here, the research is mainly focused on semantic models and the architecture of digital libraries. The work on a basic ontology for objects of intangible cultural heritage expands the standard model by including complex phenomena such as customs, crafts and rituals. In this way, the semantic and architectural foundation is outlined, on which many specific applications implemented in practice are based.

4.3. Implementation of technologies in museums and cultural institutions

The developments are oriented in the applied sphere and reflect the penetration of digital technologies into exhibition halls, tourist sites, etc. The importance of virtual reality, 3D mapping, interactive games and digital libraries in the context of tourist sites with historical significance is also reflected.

4.4. Digital archives and scientific heritage

The creation of digital archives is a prerequisite for the virtually managed collection of digital materials of a general or specialized nature to be accessible both for specialized research and for the general public.

4.5. Technological innovations, accessibility AI and engineering technologies

There are developments that provide access both for people with disabilities - e.g. visual impairments, and to mobile applications that facilitate specialists. It is emphasized that digital technologies are not only a tool for presentation, but also a means of expanding access to the necessary objects. In this direction, the application of deep learning for face recognition on historical photographic data naturally fits. Artificial supports the analysis of historical events and social models.

5. General characteristics of the candidate's pedagogical activity

The candidate's pedagogical experience is expressed in authorship and publication of textbooks and teaching aids, construction of laboratories, conducting classes, extracurricular work with students, etc. Chief Assistant Stewart, PhD has been teaching in the Department of Computer Systems and Technologies since 2021. The number of lecture courses she has led - according to the submitted reference is 2. They are in the disciplines in the Bachelor's Degree:

– Programming of Client Web Applications;
– Web Services

Exercises are led in the disciplines in the Bachelor's Degree and the Professional Bachelor's Degree, as follows:

– Specialization Practice;
– Teaching Practice;
– Programming of Client Web Applications;
– Web Services.

6. Contributions (scientific, applied science, applied).

After reviewing the content of the materials submitted to me for review, I allow myself to classify the contributions as follows:

A. SCIENTIFIC AND APPLIED CONTRIBUTIONS

– The creation of a unified prescription for describing and documenting museum collections;
– Sustainable models for implementation have been developed, the connection between museum practice "on paper" and modern digital repositories
– A hybrid model for the integration of centralized tables and information matrices has been developed, ensuring more effective structuring and processing of distributed data in dynamic environments;
– A structured framework and attribute scheme for the systematic presentation of cultural heritage objects, allowing for semantic interoperability and coherence of information, has been proposed.

B. APPLICATION CONTRIBUTIONS

- Development of both general and domain-specific ontologies integrated into the multimedia digital library;
- Functionalities for semantic notation, indexing and context-dependent information retrieval have been practically implemented;
- Modules based on artificial intelligence have been created that support knowledge retrieval;
- Practical implementation of semantic structures in the digitization system of the Regional History Museum – Burgas;
- Optimization has been introduced regarding the preparation of mandatory documentation for cultural values;
- Application of deep learning for face recognition on historical photographic data, where AI supports the analysis of historical events and social patterns;
- A toolkit for automated identification of analogous artifacts supporting curatorial expertise has been integrated;
- 3D mapping, interactive games and digital libraries have been implemented in the context of tourist sites with historical significance.

7. Assessment of the candidate's personal contribution.

Of the 22 scientific papers accepted for review, four are independent, and in the rest, Chief Assistant Stewart, PhD is a co-author. A separation protocol is presented in the materials, through which equal participation of the authors is declared. This, as well as the analysis of the scientific papers submitted for review, give me reason to believe that the contributions presented in point 6 of my review are the work of the candidate.

8. Critical notes and recommendations

I have no critical remarks. Based on an analysis of the works submitted to me for review for participation in the competition, as well as my impressions of their content, I make the following constructive recommendation for the future work of Chief Assistant Stewart PhD: - To seek opportunities for forming a team of scientists from various scientific organizations to participate in significant national and international projects within the framework of Burgas State University.

I expect to hear the candidate's position on these issues in his presentation.

9. Personal impressions

Personally, I know the candidate well. I gain additional impressions mainly and based on the submitted documents. I form an opinion about a well-prepared researcher and teacher. The recommendations indicated within the framework of this review are part of the impressions, based on the submitted documents and my assessment after familiarization and analysis of the scientific production submitted for review.

10. Conclusion:

In order to justify my conclusion, I will allow myself to make the following generalizations:

- The candidate has professional and academic experience and is familiar with the current state of science in the competitive field;
- Has a sufficient volume of scientific production with scientific-applied and applied contributions, corresponding to the requirements for the academic position.

Based on the presented scientific works, the assessment of their significance and the scientific-applied and applied contributions contained in them, I find it reasonable to give a positive comprehensive assessment and propose to initiate the procedure and support Chief Assistant Radovesta Todorova Stewart, PhD in the current competition for the position of Associate Professor in the field of higher education "5. Technical Sciences", professional field: 5.3. "Communication and Computer Engineering", scientific specialty "Platform-based Design".

Burgas

25.02.2026

Scientific Pannel Member:

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