

OPINION

From Prof. Daniela Ananieva Orozova, PhD

**Trakia University in professional field 4.6 Informatics and computer sciences
on scientific works (artistic and creative production)**

**on a competition for the occupation of an academic position “Professor”, in professional field
4.6 Informatics and computer sciences**

announced in State Gazette No. 65/12.08.2022

with candidate Assoc. Prof. Velina Todorova Slavova, PhD

I. Assessment of compliance with the minimum national requirements and the requirements of the New Bulgarian University

The documents submitted by the candidate in the competition correspond to the requirements of the Development of Academic Staff Act in the Republic of Bulgaria (ADASRB) and the Regulation for application of ADASRB (Decree No. 26 of February 13, 2019) and the Regulation on the development of the academic staff of the New Bulgarian University (NBU).

Assoc. Prof. Velina Slavova, PhD meets the conditions of Art. 29(1).1 as she submitted the Diploma for the educational and scientific degree PhD - No. 19458, dated 03.11.1989, approved by Protocol No. 15-05, dated 06.10.1989. The topic of the dissertation work is "Automating the solution of spatial dimensional chains “.

Assoc. Prof. Velina Slavova, PhD meets the conditions of Art. 29(1).2 because she holds the academic position of associate professor at the New Bulgarian University Higher School, Bachelor's Faculty, Department of Informatics with appointment act: 286 / 07.10.2003.

Assoc. Prof. Velina Slavova, PhD meets the conditions of Art. 29(1).3 as she presented a published monographic work (in English): Velina Slavova, “Language, concept formation and child language acquisition – an information modeling approach”, Professor Marin Drinov Academic Publishing House of the Bulgarian Academy of Sciences, Sofia, 2022, ISBN–978–619–245–221–6.

Assoc. Prof. Velina Slavova, PhD has a complete list of 83 publications, of which she participated in the competition with 8 publications, indexed in the scientific databases Scopus/Web of Science. The presented "List of observed citations" includes a total of 54 citations, listed in detail in an appendix to the CV.

Assoc. Prof. Velina Slavova, PhD meets the conditions of Art. 29(1).4 because she has presented other original scientific research works, publications and other scientific and scientific-applied developments - participation in 3 international scientific or educational projects and is the head of a Bulgarian team in an international scientific or educational project.

Assoc. Prof. Velina Slavova, PhD meets the conditions of Art. 29(1).5 as it meets the minimum national requirements under Art. 2b, para. 2 and 3, respectively, to the requirements under Art. 26, para. 5. A report on the fulfillment of the minimum national requirements with the number of 967 points has been submitted.

According to the submitted documents, the candidate for the competition covers: 50 points by group of indicators A; 100 points by group of indicators B; 229 points by group of indicators G; 104 points by group of indicators D; 190 points by group of indicators E, 295 точки - сума от показателите Ж, З и И (задължителни за НБУ). 295 points - sum of indicators J, Z and I (mandatory for NBU). Therefore, the minimum national requirements and the additional requirements from RIADAPRB for occupying the academic position "professor" in professional direction 4.6. Informatics and computer science are fully covered.

After a detailed review of the presented scientific works, I found that:

a) The scientific works meet the minimum national requirements (according to Article 2b, paragraphs 2 and 3 of the Development of Academic Staff Act in the Republic of Bulgaria) and the Regulation on the development of the academic staff of the New Bulgarian University for the academic position of "Professor" in the scientific field and professional direction of the competition.

b) The scientific works presented by the candidate do not repeat those from previous procedures for acquiring a scientific title and academic position.

c) There is no evidence of plagiarism in the scientific works submitted for the competition.

II. Research (creative) activity and results

In the monographic work, modern scientific fields that study language are presented and scientific approaches to its study are considered. A number of theoretical models have been created and methodological principles for research have been proposed.

The publications of Assoc. Prof. Velina Slavova, PhD are in the field of artificial intelligence and are related to research and formal modeling of cognitive processes. Of particular interest are studies of elements of complex cognitive processes related to language and emotions. She has published a total of 83 scientific works, divided by topics such as:

- 54 in artificial intelligence - cognitive models and in automatic text processing;
- 8 in mathematical models;
- 19 in CAD and Mechanical Systems;
- 2 in other fields;
- 3 textbooks (two university and one for the school network) and one book study aid for a university statistics course in French.

After 2003, when she acquired the academic position of Assoc. Prof. Velina Slavova, PhD has published 50 scientific papers in the field of cognitive process modeling and has been cited in 50 works (excluding self-citations), including 24 journal articles, 9 conference papers, 2 patents, 3 books, and 3 Ph.D. dissertations defended at foreign universities.

The results in the candidate's scientific works have a scientific, scientific-applied and applied character and can be defined as enrichment of an existing scientific field with new knowledge. In my opinion, the indicated results characterize the candidate Assoc. Ph.D. Velina Slavova as a well-established scientist with significant achievements in the field of research and modeling of cognitive processes.

III. Learning and teaching activities

Assoc. Prof. Velina Slavova, PhD has 31 courses currently listed in NBU's Moodle system. From 1994 until now she has been teaching at NBU, leading courses on: Algorithms and programming, Data structures, Database design, Natural language processing, Numerical methods, etc. From 1998 to 2020 she taught Information Technologies, Information Systems and Statistics, in French, in the Master's Program in Business Management at the Francophone Institute of Administration and Management - Sofia.

In the period from 1999 to 2017, she was annually invited as a lecturer for one-month courses at the University of Nantes, at the Institute of Enterprise Management at the Faculty of Economics and Management.

From 2005 to 2011, she was an annual invited lecturer at the French University in Egypt, where she taught courses in Database Design, Algorithms and Data Structures, and Data Structures and Algorithm Analysis.

In the period from 2001 to 2010, she led intensive short-term courses as part of an Erasmus exchange at the University of Bordeaux, the Free University of Brussels, the University of Economics in Bucharest and the teacher training center in Varna.

There are 3 textbooks published for university education and for the school network. In the last 5 years, she has taken part in two state examination commissions and is the leader of 10 graduates who have successfully defended their diplomas.

IV. Administrative and public activity

Assoc. Prof. Velina Slavova, PhD fulfills her academic duties by regularly participating in departmental councils and meeting her appointment times. Participates in committees for the defense of bachelor's and master's theses. She is a member of the Program Council of the bachelor's program in Informatics. She was Director of the Informatics Program from 1996 to 2000 and Head of the Informatics Department from 1999 to 2003.

Assoc. Prof. Velina Slavova, PhD is a member of the Regional Commission of Experts of the Francophone University Agency AUF, based in Bucharest. Shee is a member of the Scientific Council of the Francophone University Agency AUF as a representative of the country, for two terms (in the period 2001–2006). Takes part in a project for organizing and scientific management of the international conference on Cognitive Modeling in Linguistics.

V. Personal impressions of the candidate (if any)

I have no personal impressions of the candidate's work. From the documents I can judge that she is an established teacher and researcher.

VI. Notes and recommendations on the activity and achievements of the candidate

I do not find any gaps in the structuring of the content, accuracy and completeness in the description of the evidentiary material from a professional point of view, as well as in the design of the submitted documents for participation in the competition.

The documents show a successful and productive research activity. I would recommend the candidate a more active further publication activity in IF journals.

CONCLUSION

Having become acquainted with the materials and scientific works presented in the competition and on the basis of the analysis of their importance and the scientific and applied contributions contained therein, I confirm that the scientific achievements meet the requirements of the Development of Academic Staff Act in the Republic of Bulgaria, the Regulations for its implementation and the Regulation on the development of the academic staff of the New Bulgarian University, for the position of the candidate in the academic position of “Professor” in the scientific field and professional direction of the competition. I hereby state my **positive** assessment of the application of Assoc. Prof. Velina Slavova, PhD.

Based on the above, I recommend the scientific jury to propose to the competent authority for the selection of the Bachelor Faculty of New Bulgarian University, to choose **Assoc. Prof. Velina Todorova Slavova, PhD** to occupy the academic position of "**Professor**" in the professional field 4.6. Informatics and Computer Science, scientific field 4. Natural Sciences, Mathematics and Informatics.

5.12.2022

Opinion prepared by:

(Prof. Daniela Orozova, PhD)