

OPINION

by Prof. Dr. Plamena Ventseslavova Zlateva

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on the competition for the academic position "Professor", under the scientific area 4. "Natural Sciences, Mathematics and Informatics", professional field 4.6. "Informatics and Computer Science", scientific specialty "Informatics"

for the needs of the department "Modeling and Optimization", Institute of Information and Communication Technologies (IICT)-Bulgarian Academy of Science (BAS), published in the State Gazette no. 87 of 15.10.2024.

The Opinion has been prepared in my capacity as a member of the Scientific Jury of the competition for occupation of the academic position "Professor" in the professional field 4.6. "Informatics and Computer Science", scientific specialty "Informatics" for the needs of the department "Modeling and Optimization", IICT - BAS, according to Order N310/13.12.2024 of the Director of IICT-BAS, with a single candidate Assoc. Prof. Dr. Nina Hristova Dobrinkova.

1. Brief biographical data about the candidate

Assoc. Prof. Dr. Nina Hristova Dobrinkova graduated in Computer Science (Bachelor's and Master's degrees) at the Southwestern University (SWU) "Neofit Rilski" - Blagoevgrad in 2006. In 2012, she obtained the educational and scientific degree "Doctor" in the scientific specialty "Informatics" in the Institute of Mathematics and Informatics (IMI) at the Bulgarian Academy of Sciences.

Nina Dobrinkova started working at the Bulgarian Academy of Sciences in January 2009 as an assistant professor at the Institute of Information Technologies (IIT). Since January 2011, she has successively held the positions of assistant professor, chief assistant professor and associate professor at the IICT.

Assoc. Prof. Dr. Nina Dobrinkova was a member of the Scientific Council of IICT-BAS in the period 2018-2022. She has participated in numerous national and international scientific projects as a supervisor and researcher.

She is the supervisor of two PhD students, one of whom successfully defended his dissertation in 2021. She has supervised graduate students and specialists. Assoc. Prof. Dr. Dobrinkova has carried out successful expert and consulting activities in support of institutions and government.

She is a member of national and international scientific and professional organizations. She has participated in the organizational and program committees of scientific forums in Bulgaria and abroad.

2. General information about the submitted documents and the fulfillment of the minimum requirements for occupation of the academic position "Professor"

The documents submitted for the competition by the single candidate Assoc. Prof. Dr. Nina Dobrinkova fully comply with the requirements of the Act on the Development of the Academic Staff in Republic of Bulgaria (ADSRB), the Regulations Implementation (PPDSARB), the Regulations on the Conditions and Procedure for Acquiring Scientific Degrees and for Occupying Academic Positions in the Bulgarian Academy of Sciences and the Regulations on the Specific Conditions for Acquiring Scientific Degrees and for Occupying Academic Positions in the IICT - BAS.

For participation in the competition, the candidate, Assoc. Prof. Dr. Nina Dobrinkova has submitted a total of 19 publications, of which 1 is a monograph (with 1 co-author), 17 publications are indexed in Scopus and/or Web of Science, 1 is a useful model.

The publications submitted for participation in the current competition do not repeat the publications that were submitted by the candidate for acquiring the educational and scientific degree "Doctor" and for occupying the academic position "Associate Professor".

Assoc. Prof. Dr. Nina Dobrinkova has submitted a Declaration that there is no legally proven plagiarism in the publications submitted for the competition.

Assoc. Prof. Dr. Nina Dobrinkova has attached a correctly completed report for the fulfillment of the minimum requirements of IICT-BAS for the academic position of "Professor" for the professional field 4.6 - achieving the required minimum number of points in the specified groups of indicators, which exceed the national minimum requirements:

Indicator A: Dissertation for awarding the educational and scientific degree "Doctor":

Information is presented for a defended dissertation on the topic "Information systems for simulating the behavior of forest and field fires", Diploma №000127, issued on 09.04.2012 by the Bulgarian Academy of Sciences /50 points/.

Indicator B: Habilitation thesis - monograph:

A monograph has been presented (co-authored, with a total volume of 216 pages, with Nina Dobrinkova's authorship being 146 pages - 68%) on the topic "Bonded liability and risk assessment - an effective measure against climate change, disasters and floods" /100 points/.

Criteria G.7: Scientific publications in editions that are referenced and indexed in world-famous databases with scientific information (Web of Science, Scopus, Zentralblatt, MathSciNet, ACM Digital Library, IEEE Xplore and AIS eLibrary), outside the Habilitation Thesis /B/:

The candidate has submitted 17 publications, of which 6 publications are in Web of Science, 11 publications are in Scopus, 8 are with SJR /292 points/.

Criteria G.9: Invention, patent or utility model for which a protection document has been issued in due course:

A utility model "System for analysis and control of the mechanical properties of biological tissues" (co-authored with 4 other researchers) /25 points/ has been submitted.

The total number of points obtained under indicator G is 317, exceeding the required minimum number of points /260/.

<u>Indicator D:</u> Citations in scientific publications, monographs, collective volumes and patents, referenced and indexed in world-famous databases with scientific information (Web of Science, Scopus, Zentralblatt, MathSciNet, ACM Digital Library, IEEE Xplore and AIS eLibrary):

The candidate has submitted 29 citations, of which 27 are in publications indexed in Web of Science/Scopus and 2 are in publications indexed in IEEE Xplore.

The number of points obtained /168/ exceeds the required minimum number of points /140/.

<u>Indicator E:</u> Management and/or participation in national and international scientific or educational projects:

Criteria E.13: Supervisor of a successfully defended PhD

Assoc. Prof. Dr. Nina Dobrinkova has 1 successfully defended PhD student /50/.

<u>Criterion E.14:</u> Participation in a national scientific / educational project

Assoc. Prof. Dobrinkova has participated in 4 national scientific or educational projects /40/

<u>Criterion E.16:</u> Management of a national scientific / educational project

Assoc. Prof. Dobrinkova has managed 1 national scientific project /20/.

Criterion E.17: Management of the Bulgarian team in an international
scientific / educational project

Assoc. Prof. Dobrinkova has managed the Bulgarian team in 6 international scientific projects /300/.

The total number of points obtained under indicator E /410/ exceeds the required minimum number of points /150/.

The obtained points on the group indicators (A, C, D, E, E) clearly show that the candidate Assoc. Prof. Dr. Nina Dobrinkova fulfills and even exceeds in some of the indicators the minimum requirements (national and of IICT-BAS) for occupying the academic position of "Professor" in the professional field 4.6. "Informatics and Computer Sciences" at IICT-BAS.

3. General description of the proposed contributions of candidate

I accept the stated original scientific and scientific-applied contributions in the report submitted by the candidate, Assoc. Prof. Nina Dobrinkova, as enriching the scientific field of the competition with new knowledge and opportunities for real applications.

I indicate the following contributions as the most significant:

- Web-based modules or systems have been developed and tested to support decision-making of services for reaction on the ground in case of disasters.
- Approaches and optimizations have been developed and tested in the simulation of forest and field fires in Bulgaria.

I accept that all contributions proposed by Assoc. Prof. Dr. Nina Dobrinkova are significant enough for occupying the academic position of "Professor" at IICT-BAS.

4. Personal impressions about the candidate

I know Nina Dobrinkova as an ambitious and thorough scientist who is able to successfully manage various scientific projects.

5. Conclusion

In conclusion, I declare that the documents and materials submitted for participation in the competition by Assoc. Prof. Dr. Nina Hristova Dobrinkova present results that fully cover the set of requirements for the academic position "Professor" according to the Act for the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its implementation, the Regulations on the terms and procedures for acquiring scientific degrees and for occupying academic positions in the Bulgarian Academy of Sciences and the Regulations for the specific conditions for acquiring scientific degrees and for occupying academic positions in the IICT-BAS in, professional field 4.6. "Informatics and Computer Science", scientific specialty "Informatics".

I confidently give my positive assessment and recommend to the Scientific Jury to propose to the Scientific Council of the IICT-BAS to elect Assoc. Prof. Dr. Nina Hristova Dobrinkova to the academic position of "Professor" in 4.6. "Informatics and Computer Science", scientific specialty "Informatics".

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03.02.2025 Sofia

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