

## О P I N I O N

by **Corr. Member, Prof. Lyubka Atanasova Doukovska, PhD, DSc**  
from the Institute of Information and Communication Technologies,  
at the Bulgarian Academy of Sciences,  
on the Competition for the academic position “**Professor**”,  
under the Scientific Field: 5. Technical sciences,  
the Professional Area: 5.2. Electrical engineering, Electronic and Automation,  
the Scientific Specialty: Application of the principles and methods of cybernetics in  
different fields of science,  
for the needs of the Intelligent Systems Department  
of the Institute of Information and Communication Technologies - BAS,  
announced in Darjaven Vestnik No. 95/14.11.2023  
with a participant - **Associate Professor Vera Angelova Angelova-Dimitrova, PhD**

In accordance with Order No. 7/10.01.2024 of the Director of the Institute of Information and Communication Technologies - BAS, I was included in the Scientific Jury of the competition for occupation of the academic position “Professor” in the Scientific Field 5. Technical sciences, the Professional Area 5.2. Electrical engineering, Electronic and Automation, the Scientific Specialty “Application of the principles and methods of cybernetics in different fields of science”, announced in the Darjaven Vestnik, Issue 95 of 14.11.2023, for the needs of the Intelligent Systems Department at the Institute of Information and Communication Technologies - BAS, with the sole participant in the competition - Associate Professor Vera Angelova Angelova-Dimitrova, PhD.

Vera Angelova Angelova-Dimitrova was born on July 30, 1965 in the town of Sofia. She received his Master's Degree in Automation of Production Processes in 1989 from the Technical University - Sofia. In the period 1991-1993, she was a PhD student in

the Institute of Informatics at the Bulgarian Academy of Sciences, with academic supervisor Academician Ivan Petkov Popchev. She obtained the degree of Candidate of Technical Sciences (PhD) in 1993 by decision of the Higher Attestation Commission with Protocol 5 No. 7 of 26.06.1995. Since 1993, she has been appointed to a scientific position at the Bulgarian Academy of Sciences, having been consecutively in the composition of the following institutes - Institute of Informatics (II-BAS), Institute of Information Technologies (IIT-BAS) and Institute of Information and Communication Technologies (IICT-BAS). In 1995 she was appointed Associate Professor at the Institute of Information Technology (IIT-BAS) and since 2010 she has held the same position at the Institute of Information and Communication Technologies (IICT-BAS). Since 2022, she has been the scientific secretary of the same institute.

As a member of the Scientific Jury, I have received the following documents:

1. Order No. 7/10.01.2024 of the Director of the Institute of Information and Communication Technologies;
2. Application for participation in the competition by the participant;
3. A European Curriculum Vitae;
4. Copy of the diploma for educational and scientific PhD degree;
5. Certificate of work experience in the specialty;
6. List of scientific publications, with which the applicant participates in the competition, which do not repeat the ones submitted for the acquisition of the educational and scientific PhD degree and for the occupation of the academic position "Associate professor";
7. List of textbooks and study aids;
8. List of noticed citations;
9. Summaries of the scientific publications with which the applicant participates in the competition - in Bulgarian and English;
10. Copies of all scientific publications with which the applicant participates in the competition;

11. Information for fulfillment of the minimum national requirements under Art. 2b, # 2 and # 3 and the requirements of the Institute of Information and Communication Technologies - BAS under Art. 2b, # 5, prepared, based on documents submitted for the competition provided by Associate Professor Vera Angelova Angelova-Dimitrova;

12. Reference for the original scientific and applied scientific contributions;

13. Statement for no proven plagiarism in the scientific works;

14. Official notes for the applicant's participation in research and application projects.

According to the requirements of the *Development of Academic Staff Act in the Republic of Bulgaria* and the specific requirements in the Act's Institutional Regulation, the candidates for occupying the academic position of "Professor" must meet the following conditions, regulated in Art. 29. (Darjaven Vestnik issue 81 of 2010 - Decision No. 11 of 05.10.2010 of the Constitutional Court of the Republic of Bulgaria under cadastral plot No. 13/2010; amend in full, issue 101 of 2010; amend. and supplement, issue 30 of 2018, effective 05.05.2018) (1):

1. Have acquired the educational and scientific PhD degree;

2. Have held the academic position of "Associate Professor" at the same or another higher education institution or scientific organization for at least two academic years or at least five years;

3. Have submitted published monographs or equivalent publications in specialized scientific editions that do not repeat the ones submitted for the PhD degree and for the academic position of "Associate Professor";

4. Have submitted other original research papers, publications, inventions and other scientific and applied developments that are evaluated as aggregate;

5. To comply with the minimum national requirements under Art. 2b, # 2 and # 3, respectively, of the requirements of art. 2b, # 5;

6. Not to have plagiarism proven in the statutory order in scientific works.

(3) Applicants shall submit a report on the fulfillment of the minimum national requirements under Art. 2b, # 2 and # 3, respectively, of the requirements of art. 2b, # 5,

and a reference to the original scientific contributions, to which the relevant evidence set out in this Act, in the regulation for its implementation, and the regulations of higher schools and scientific organizations.

Associate Professor Vera Angelova Angelova-Dimitrova fulfills the requirement of Art. 29 (1) item 1 of the *Development of Academic Staff Act in the Republic of Bulgaria*, because by a decision of the Presidium of the Higher Attestation Commission at the Council of Ministers of the Republic of Bulgaria, based on a protected PhD Thesis's on the topic "Perturbation analysis of linear multidimensional control systems", a diploma No. 23757/02.10.1995 was issued, for the scientific degree Candidate of Technical Sciences (PhD), Protocol No. 7-05/26.06.1995.

Associate Professor Vera Angelova Angelova-Dimitrova also meets the requirement of Art. 29 (1) item 2 of the *Development of Academic Staff Act in the Republic of Bulgaria*, because the official note with Ex. No. 1 of 03.01.2024, signed by the Director of the Institute of Information and Communication Technologies, certifying that Associate Professor Vera Angelova Angelova-Dimitrova has a total work experience in the specialty of 34 years at date of competition.

Associate Professor Vera Angelova Angelova-Dimitrova fulfills the requirement of Art. 29 (1) item 3 of the *Development of Academic Staff Act in the Republic of Bulgaria*, because as the equivalent of a monographic work, a list of 10 scientific publications that are referenced and indexed in world-famous databases with scientific information is presented. From the analysis of the competition papers submitted by the applicant we can conclude that the peer-reviewed publications "do not repeat the ones submitted for the acquisition of the educational and scientific PhD degree and for the occupation of the academic position Associate Professor", in accordance with the requirements of Art. 29 (1), item 3 of the *Development of Academic Staff Act in the Republic of Bulgaria*.

Associate Professor Vera Angelova Angelova-Dimitrova fulfills the requirement of Art. 29 (1) item 4 of the *Development of Academic Staff Act in the Republic of Bulgaria*, since in the documents for participation in the competition a List of textbooks

and study aids is presented, including three university textbooks and two university study aids. For her participation in the current competition for an academic position, Associate Professor Vera Angelova Angelova-Dimitrova also presented a list of 18 titles, of which 5 are independent.

Associate Professor Vera Angelova Angelova-Dimitrova has presented a list of 101 citations. It is important to note that 87 citation publications have been noted, which have been indexed and referenced in Scopus and / or Web of Science editions, which also fulfills the specific conditions for acquiring academic degrees and occupying academic positions “Professor” in the Institute of Information and Communication Technologies - BAS.

Associate Professor Vera Angelova Angelova-Dimitrova fulfills the requirement of Art. 29 (1) item 5 of the *Development of Academic Staff Act in the Republic of Bulgaria*, according to the information provided for the fulfillment of the minimum national requirements and the minimum requirements of Institute of Information and Communication Technologies - BAS by Associate Professor Vera Angelova Angelova-Dimitrova, she fully covers the minimum requirements for indicators A, C, D, E and E for the Scientific Field 5. Technical sciences, the Professional Area 5.2. Electrical engineering, Electronic and Automation, the Scientific Specialty “Application of the principles and methods of cybernetics in different fields of science”.

Associate Professor Vera Angelova Angelova-Dimitrova fulfills the requirement of Art. 29 (1) item 6 of the *Development of Academic Staff Act in the Republic of Bulgaria*, because I accept the Declaration submitted by the applicant that there is no legally proven plagiarism in the scientific works presented for this competition by Associate Professor Vera Angelova Angelova-Dimitrova.

The scientific works submitted for participation in the competition are in the field of studying the conditionality and sensitivity of matrix equations from the theory of linear systems for the control of technological processes. The main part of the research carried out by the candidate is related to Perturbation Analysis, which is an element of numerical analysis in the theory of scientific calculations.

The contributions in the peer-reviewed works, assuming equal participation of the co-authors, can be briefly presented by solving the following scientific tasks for determining and evaluating:

1. Numbers of conditioning (absolute and relative).
2. Local asymptotic perturbation boundaries.
3. Nonlocal nonlinear perturbation boundaries.
4. Boundary of the residual error in the calculated solution.
5. Comparative analysis of existing boundaries.

I accept the contributions formulated by the applicant in the works with which Associate Professor Vera Angelova Angelova-Dimitrova participates in the competition, the results being scientific, scientifically applied and applied and can be defined as enrichment of an existing scientific field with new knowledge, which satisfies the requirements of Art. 29 (3) of the *Development of Academic Staff Act in the Republic of Bulgaria*.

Associate Professor Vera Angelova Angelova-Dimitrova was a member of a team of five projects.

Associate Professor Vera Angelova Angelova-Dimitrova was a supervisor of five PhD students, one of which is successfully defended.

**In conclusion**, I agree that the requirements of the Law for the *Development of Academic Staff Act in the Republic of Bulgaria* and the specific requirements in the Act's Institutional Regulations for its implementation, the Rules for the conditions and the order for acquiring academic degrees and for the occupation of academic positions in BAS and the Rules for the specific conditions for acquisition of academic degrees and occupation of academic positions at the Institute of Information and Communication Technologies - BAS are accomplished. After getting acquainted with the materials submitted by the applicant for the competition, I give my positive estimation about the choice of **Associate Professor Vera Angelova Angelova-Dimitrova** in the competition for the academic position of "Professor" for the needs of the Intelligent Systems Department of the Institute of Information and Communication Technologies - BAS, in

the Scientific Field 5. Technical sciences, the Professional Area 5.2. Electrical engineering, Electronic and Automation, the Scientific Specialty “Application of the principles and methods of cybernetics in different fields of science”.

I propose that the Scientific Jury unanimously vote for a proposal to the Scientific Council of the Institute of Information and Communication Technologies - BAS, to elect **Associate Professor Vera Angelova Angelova-Dimitrova** for the academic position of “**Professor**” in the Scientific Field 5. Technical sciences, the Professional Area 5.2. Electrical engineering, Electronic and Automation, the Scientific Specialty “Application of the principles and methods of cybernetics in different fields of science”.

24.02.2024

Sofia

Signature

НА ОСНОВАНИЕ  
331А

/Corr. Member Lyubka Doukovska/