

OPINION

Competition for the Academic Position "Professor"

in area 5. "Technical Sciences",
Professional field 5.2 "Electrical Engineering, Electronics and Automation"
Scientific speciality: "Application of the principles and methods of cybernetics in various fields of science"
for the needs of the Intelligent Systems Department at ICT-BAS, announced in the State Gazette issue 95 of November 14, 2023

with a single candidate: **Assoc. Prof. Dr. Vera Angelova Angelova-Dimitrova** from ICT-BAS

Member of the scientific jury: prof. Dr. Tasho Angelov Tashev

Vera Angelova Angelova-Dimitrova has submitted all necessary documents, references and declarations under the Law on the Development of Academic Staff in the Republic of Bulgaria (LDAS in the Republic of Bulgaria), the Regulations for the Implementation of the Higher Education Act in the Republic of Bulgaria, the Regulations for its implementation, the Regulations for the Acquisition of Scientific Degrees and Academic Positions at the Bulgarian Academy of Sciences and the Regulations for the Specific Conditions for Acquiring Scientific Degrees and for Occupying Academic Positions at ICT-BAS. The candidate participates in the competition with 28 publications, 3 university textbooks, 2 university teaching aids, presented in full text and a list of 110 citations.

1. Compliance the requirements of art. 53, para. 1, Regulations for implementation of LDAS in RB

a) p. 1 and 2

Vera Angelova Angelova-Dimitrova defended her PhD thesis in the speciality "Theory of Automatic Control" in 1993 at the Institute of Informatics at the Bulgarian Academy of Sciences. Since 2005 he has held the academic position of Associate Professor in the specialty "Application of Cybernetics in Various Fields of Science (Technical)" in the successor of the Institute of Informatics - the Institute of Information Technologies and currently, in its successor since 2010 - the Institute of Information and Communication Technologies (ICT) at the Bulgarian Academy of Sciences. From 1999 to 2009 he was a part-time lecturer at the Technical University of Sofia in the discipline "Linear Control Systems" in French at the Francophone Department for Electrical Engineers.

Since 2010 he has been leading the disciplines "Fundamentals of Statistics" and "Applied Statistics" in French in the Bachelor's French program of the Faculty of Economics at Sofia University "St. Kliment Ohridski", Sofia.

In the period 2016 – 2020, she was a supervisor of 5 PhD students. One of the PhD students has successfully defended a PhD thesis.

Vera Angelova has participated in 4 national scientific projects and 1 international project.

b) p. 3 and 4

The 28 publications submitted for participation in the competition were published after 2005 - the year of occupying the academic position "Associate Professor". Of these, 16 are in journals with an impact factor, 6 are in journals with SJR, 3 are in journals of national academic publishers and 1 is in a journal of an international non-academic publishing house. The publications do not repeat those presented for acquiring the PhD degree and for occupying the academic position of "Associate Professor". Of the publications presented, 5 are independent. The other publications are co-authored, mainly in a team with the most famous leading scientists with international recognition in the scientific field: prof. Petko Petkov and prof. Mikhail Konstantinov.

To participate in the competition Vera Angelova Angelova-Dimitrova has submitted a list of 110 independent citations. Of these, 83 are in publications that are referenced and indexed in the world's databases of scientific information. Citations in non-refereed journals with scientific reviews are 21. In monographs with scientific reviews, 2 citations are indicated.

c) p. 5

The number of points by indicators of the submitted publications, citations, and activities in group E exceeds the minimum national requirements and additional requirements of IICT-BAS by groups of indicators B, Г, Д, and E:

Group of indicators	Minimum national requirements	Minimum requirements of the IICT	Points declared by groups of indicators by the applicant
A	50	50	50
Б	-	-	-
B	100	100	240
Г	200	220	338.3
Д	100	120	918
E	150	150	250

Table 1. Number of points per indicator

d) p. 6

Vera Angelova Angelova-Dimitrova has no plagiarism in scientific works proven by law.

2. Evaluation of the scientific and applied activities of the applicant and contributions in the materials submitted for review

The scientific and applied results of the candidate's contribution are in the field of study of the conditioning and sensitivity of matrix equations related to problems of the theory of linear control systems. A major element of the theory of scientific calculations, perturbation analysis gives estimates of the conditioning and sensitivity of the computational problem. Perturbation bounds are a mandatory element for ensuring the reliability of a numerically stable algorithm, according to modern standards in scientific and engineering calculations.

The applicant claims 3 scientific and 4 applied contributions. All of them are approved in articles, published and cited in publications in journals, referenced and indexed in the world-famous databases with scientific information. I accept the results formulated by the candidate of a contributory nature. I believe that the results are relevant and significant.

I have no critical comments or recommendations.

Conclusion

The documents and materials presented by Vera Angelova Angelova-Dimitrova meet the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for the Application of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations on the Terms and Conditions for the Acquisition of Scientific Degrees and Positions at the Bulgarian Academy of Sciences and the Regulations on the Specific Conditions for Acquiring Scientific Degrees and for Occupying Academic Positions at IICT-BAS. The results achieved by Vera Angelova Angelova-Dimitrova correspond, and in four of the five groups of indicators - they exceed the minimum national requirements and the additional requirements of IICT-BAS to occupy the academic position of "professor".

Based on the presented documents and scientific works and the analysis of their significance and the contributions contained therein, **I give a positive conclusion for the selection of Assoc. Prof. Dr. Vera Angelova Angelova-Dimitrova to the academic position of "Professor" at IICT-BAS and recommend to the Scientific Jury to propose to the Scientific Council of IICT-BAS Assoc. Prof. Dr. Vera Angelova Angelova-Dimitrova for the election of the academic position of Professor at IICT-BAS, for the needs of the "Intelligent Systems" Department, in professional field 5.2 "Electrical Engineering, Electronics and Automation", speciality: "Application of principles and methods in various fields of science (technical)".**

Feb 20, 2024

Sofia

Prepared the opinion:

НА ОСНОВАНИЕ

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