

# OPINION

by Prof. Snezhana Dineva Sulova, PhD,  
department of Informatics, University of Economics – Varna,  
member of a scientific jury for the academic position “professor”,  
field of higher education 4. “Natural sciences, mathematics and informatics”,  
professional field: 4.6 “Informatics and computer sciences”

## 1. General information

The opinion was prepared by Prof. Snezhana Dineva Sulova, PhD, professional field 4.6. “Informatics and Computer Sciences”, member of the scientific jury, determined by order of the Rector of the Konstantin Preslavsky University of Shumen № RD 016-013/30.01.2024, Decision of the Scientific Jury dated 6.02.2024, the Law for the development of the academic staff in the Republic of Bulgaria (ZRASRB), Regulations for the implementation of the Law for the Development of the Academic Staff in the Republic of Bulgaria (PPZRASRB) and Regulations for the Development of the Academic Staff at the Konstantin Preslavsky University of Shumen.

## 2. Data about the competition

The competition is for the occupation of the academic position “professor” in the professional field 4.6 “Informatics and Computer Sciences” (Informatics), for the needs of the department of “Computer Informatics” of the Konstantin Preslavsky University of Shumen. The competition was announced in the State Gazette issue № 100/1.12.2023.

## 3. Contest candidate

The only candidate in the competition is: **associate professor eng. Krasimir Mitkov Kordov, PhD.**

The candidate graduated with a bachelor's degree in „Computer Informatics“ at the Konstantin Preslavsky University of Shumen and a master's degree in “Computer Systems and Technologies“ at the National Military University Vasil Levski. In 2015, he obtained the educational and scientific degree “doctor” in Professional field: 4.6. Informatics and Computer Science, for a defended dissertation on the topic “Investigation of Cryptographic Algorithms for Protecting Raster Graphics Files”. Since 2012 the candidate has held the position of “assistant”, since 2016, the position of “chief assistant”, and since 2017 the position of “associate professor” in the

“Computer Informatics” department of Konstantin Preslavsky University of Shumen. Before that, he worked for a year as a programmer.

Associate Professor Krasimir Kordov, PhD has experience in teaching and research. He has worked on scientific projects, he was a member of the Institute of Electrical and Electronics Engineers (IEEE), the Association for Computing Machinery (ACM). He is a member of the Union of Mathematicians in Bulgaria (SBM) and the Union of Scientists in Bulgaria (SUB). He is the recipient of awards from the Rector of the Konstantin Preslavsky University of Shumen and a certificate in the “John Atanasov” award category by the President of the Republic of Bulgaria in 2017.

#### **4. Quantitative and qualitative characteristics of the presented scientific works**

The candidate is participating in the competition for the academic position of “professor” with 11 publications: 6 articles and 3 research papers (co-authored), 1 textbook and 1 practical textbooks.

According to Art. 60 item 3 of PPZRASRB and art. 77 item 3 of PRASUE, the candidate has submitted a publications equivalent to a monographic work in a specialized scientific publication, which does not repeat published scientific works, for acquiring the educational and scientific degree “doctor” and for occupying the academic position “associate professor”.

The publications are mainly in the field of information security. New algorithms are proposed for steganographic protection – hiding secret text messages in digital images, by using stego-containers and hashing algorithms based on hash functions to transform the information.

The publications are in English and are referenced and indexed in world-renowned databases of scientific information. From the references for the citations found, it can be seen that assoc. prof. Kordov is well-known in scientific circles.

After I got acquainted with the publications submitted by the candidate for the contest, I believe that they are his work, no plagiarism has been detected.

The fulfillment of the minimum national requirements for the groups of indicators for occupying the academic position “professor” is as follows:

- for indicator group “A” – the candidate has a defended dissertation for awarding the educational and scientific degree “doctor”, diploma № D-083/20.10.2015, 50 points;

- for indicator group “B” – scientific publications, that are referenced and indexed in world-famous databases (Web of Science и Scopus) are presented, 105 points;
- for indicator group “C” – a total of 6 scientific publications are presented in issues that are referenced and indexed in world-renowned databases with scientific information (Scopus or Web of Science), 210 points.
- for indicator group “D” – a total of 13 citations are presented in Scopus and Web of Science, each of which earns 8 points for the candidate, 104 points;
- for indicator group “E” – the candidate has participated in 6 national projects, has published one textbook and one co-authored practical textbook, 110 points.

According to the Reference-declaration for occupying the academic position of “professor” in the field of higher education 4. “Natural Sciences, Mathematics and Informatics” at Konstantin Preslavsky University of assoc. prof. Krasimir Kordov, PhD satisfies the requirements under art. 2b, item 2 and 3 of ZRASRB.

### **5. General assessment of teaching work**

Assoc. prof. Krasimir Kordov, PhD has 12 years of teaching experience. He has taught in the following disciplines: Basics of programming; Introduction to Programming and Algorithms; Databases and their application; Fundamentals of Computer Informatics; Planning and design of information systems; Business information systems; Synthesis and analysis of algorithms; Web-based information systems; Programming and use of computer systems; Application programming; Design of software systems; Tools for developing information systems; Introduction to Cryptography; Cryptography; Multimedia software. He has been teaching several times at Spiru Haret University, Bucharest, Romania.

He has published a textbook and practical textbook. He has been the supervisor of graduate students. He is the chairman of the annual tournament for the FMI Dean's Cup Tournament in Informatics and Information Technologies for students and pupils, the chairman of the committee for Candidate Student Activities in the field of “Informatics”, co-organizer of the Student and Pupil Competition in Steganography and Cryptography. He has participated in juries for filling the academic position of “associate professor” and for the defense of doctoral theses.

I highly value the educational and pedagogical experience of the candidate in the competition for the academic position “professor”.

#### **6. Identification of scientific contributions**

The contributions presented by Assoc. prof. Krasimir Kordov, PhD are of a scientific and scientifically applied nature. They are in the field of information security, by developing cryptographic, steganographic and hashing algorithms for information protection, in the field of web-based information systems, by creating a system for researching associative dictionaries. I consider the candidate’s contributions to be significant, real and enriching the existing theory and practice.

#### **7. Critical notes, questions and recommendations**

I recommend assoc. prof. Krasimir Kordov, PhD to continue his research activities by publishing independent articles, studies, monographs. To pass on his knowledge and experience as a supervisor of doctoral students and young researchers.


#### **8. Conclusion**

After familiarizing myself with the materials and scientific works provided by assoc. prof. Krasimir Kordov, analyzing their significance and the contributions contained in them, I confirm the compliance of the candidate’s results with the requirements of the ZRASRB, the Regulations for the implementation of the ZRASRB for occupying the academic “professor” position in the professional field 4.6. “Informatics and Computer Sciences”, as well as the Regulations for the Development of the Academic Staff at the Konstantin Preslavsky University of Shumen.

**I give my positive opinion on the readiness of the candidate assoc. prof. Krasimir Kordov, PhD to occupy the academic position “professor” in professional field 4.6 “Informatics and computer sciences” at the Konstantin Preslavsky University of Shumen.**

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Prepared the opinion:  .....

/prof. Snezhana Sulova, PhD/