

Opinion

**For the competition for occupation of the academic position „professor”
Higher education area 4. Natural sciences, mathematics and informatics, professional
field: 4.6 Informatics and Computer Science, specialty: Informatics (Digital cultural
content management systems and E-learning), declared in the State Gazette No
102/1.12.2020, for the needs of the Institute of Mathematics and Informatics (IMI) at
Bulgarian Academy of Sciences (BAS), department of Software technologies and
Information systems
with one candidate: Assoc. Prof. Dr. Desislava Ivanova Paneva-Marinova**

**Member of the scientific Jury: Prof. Dr. Krassen Stefanov Stefanov,
Sofia University „St. Kl. Ohridski” – Faculty of Mathematics and Informatics**

I am presenting this opinion as a member of the Scientific Jury in the above mentioned competition, on the base of order No 12 from 29.01.2021 of the Director of IMI - BAS, as well as on the ground of Decision of the Scientific Jury (Protocol 1 from 11.02.2021). This opinion fully corresponds to the ZRASRB, Statute of MC for the application of ZRASRB, Statute for the development of the academic staff of BAS, and Statute of IMI-BAS.

1. General description of presented materials

I received the following documents as a member of the scientific jury: CV, copy of the PhD Diploma, certificate for the length of service, list with scientific publications for participation in the competition, list of all scientific publications, list with citations, resumes of the publications – in Bulgarian and in English language, copies of all the publications as well as rezumes in Bulgarian and in English language of the 20 publications presented for the participation in the competition, checklist for the fulfilment of the national minimal requirements to become professor, reference for the original scientific results and achievements, declaration for the absence of plagiarism, declaration for the participation in scientific projects and other achievements, and several administrative documents.

The candidate fulfils all the requirements stated in the ZRASRB, Statute of its implementation, as well as statutes of BAS and IMI. In particular:

1. She achieved the PhD
2. She holds a position of Associate Professor for more than two years

3. She presented 20 scientific publications in specialized scientific issues, different from these for achieving PhD and Associate Professor rank, and valued with the needed points according to requirements and minimal national standards for becoming a professor.

4. 13 of the presented 20 publications are in the scientific sources having either IF and/or Scopus Impact Rang (the stated minimum in the IMI-BAS statute was 10)

The publications presented for the competition fully correspond to the thematic of the competition.

The candidate has 20 years professional experience working at IMI-BAS, where she became PhD and Associate Professor. In the last 5 years she was head of the Mathematical Linguistic section at IMI-BAS. She is also member of the Scientific Committee at IMI-BAS and Head of the Attestation Committee at IMI-BAS.

2. A general characteristics of the candidate's research, education and application activities

The whole number of the publications of Dr. Desislava Paneva-Marinova is 133, from them 61 are indexed in Web of Science (WoS) and/or Scopus, and 15 have IF and/or SJR. From these publications she chose to present 20 for the official participation in the competition. 13 from these publications have IF and/or SJR. One is a collective monography, one is a chapte in the book, and the rest are indexed in WoS and Scopus. 13 publications are in international conferences and 5 in international magazines.

I can conclude that quantity and quality of presented scientific publications is more than enough to satisfy all of the stated requirements.

Dr. Desislava Paneva-Marinova has experience as a university lecturer. Her main teaching experiences are related with PhD students. She supervised 6 PhD students, 1 is still active student, all other finished successfully and one already achieved PhD.

The candidate has 40 presentations at international conferences and 20 at national events. She participated in 6 international research projects and in more than 15 national research projects. She participated in the development of 6 big software products. She is in editorial board of two scientific publications and is member of the Programme Committee of 10 international conferences.

She participated actively in the social and scientific life at IMI and has strong management experience.

3. Analysis of the scientific and applied research results of the candidate

The main scientific results of Assoc. Prof. Dr. Desislava Paneva-Marinova in the publications, presented for the competition, can be divided into the following research domains:

A. Systems for management of digital cultural content – technologies and methods.

- (1) Creation, presentation and content management of digital libraries (methods and tools for creation, exploitation, semantic description of digital libraries content; architectures and functionalities of digital libraries; approaches for personalized use of resources and services) – publications 9, 12, 19, 20;
- (2) Presentation, extraction and processing of knowledge (methods and tools for analysis, synthesis, processing and intelligent curation of Big Data sets; knowledge extraction) – publications 3, 4, 5, 10, 16;
- (3) Integration of systems for management of digital cultural content. Creation of digital cultural ecosystems (methods and tools for interoperability on content level; models of ecosystems with digital cultural assets) – publications 2, 3, 6, 13, 14, 15.

B. E-learning – technologies and methods

1. Application of information and communication technologies in education (development and applications of serious educational games, digital theatre and storytelling methods in education; models and tools for education in mathematics via integration of pedagogical methods, arts and innovative technological platforms) – publications 1, 7, 8, 11, 17, 18.

There are no cases of plagiarism related to publications of Assoc. Prof. Dr. Desislava Paneva-Marinova.

All the scientific publications of the candidate are related to the competition and are published in high quality international conferences and highly reputed scientific magazines.

The main characteristics of the scientific publications are related to enriching scientific knowledge and application of scientific results in practice.

The scientific results are definitely her own and could be classified as definition and creation of new methods, technologies, models and classifications, as well as confirming important for the practice scientific applications through real life software products implemented in various organizations.

4. Influence of the publications of the candidate to the research community

The participation of the candidate in many scientific events and conferences, and active participation in successful international projects resulted in high number of scientific citations. This proves that the candidate is well known and well respected scientist in her research domains. She has 162 overall citations for 64 from her publications, coming from scientific publications indexed in Web of Science (WoS) and Scopus. In addition, 209 scientific publications also cited her research efforts. This resulted in overall 371 citations for the scientific publications of the candidate. It is obvious that this big number is more than enough and proves the high visibility of research results of Desislava Paneva-Marinova.

In addition, her scientific publications chosen for the competition, have a total of 31 citations.

I can conclude that the number of citations of research publications selected for the participation in the competition satisfies all the requirements for the position of Professor, and even exceed them significantly.

5. Critical remarks and recommendations

I don't have any critical remarks.

I can recommend to the candidate to increase her efforts in teaching and working with students at Sofia University.

6. Personal opinion about the candidate

I know the candidate for more than ten years and I have excellent opinion for her modesty, diligence, scientific competences and collegiality. She have all the necessary personal and professional characteristics to become a professor. She is one of the leading scientists, who are good example for their colleagues and are raising the authority of IMI-BAS.

7. Conclusion

On the ground of all above mentioned facts and conclusions, and taking into account the standards expressed in the laws and statutes, I confirm that all scientific results and achievements fully correspond to the requirements expressed in ZRASRB, Statute of MC for the application of ZRASRB, Statute for the development of the academic staff of BAS, and Statute of IMI-BAS.

In particular, the candidate is satisfying all the minimal requirements expressed in various scientific indicators. Also, there are no evidence for any form of plagiarism in respect to the scientific publications of the candidate.

I give my positive vote for all presented materials from Desislava Paneva-Marinova.

General Conclusion

As the candidate fully satisfy all requirements of ZRASRB and the rest of normative documents, standards and statutes enumerated above, and even exceed most of the quantitative indicators significantly, this gives me the conviction to state, that Assoc. Prof. Dr. Desislava Paneva-Marinova is fully suited to take the position Professor. So, I propose to the Honorable Members of the Scientific Jury to vote for the assignment of Desislava Paneva-Marinova to the academic position of Professor in the higher education area 4. Natural sciences, mathematics and informatics, professional field: 4.6 Informatics and Computer Science, specialty: Informatics (Digital cultural content management systems and E-learning).

Date: 14.03.2021

Member of scientific Jury:

/Prof. Dr. Krassen Stefanov/