OPINION

on the competition for the academic position

"professor"

in professional field 4.6 Informatics and Computer Science

(Open Science and Innovation in Digital Cultural Heritage),

for the needs of the "SofTIS" Department at

the Institute of Mathematics and Informatics of the Bulgarian Academy of Sciences

announced in the State Gazette, Issue No. 63, dated July 10, 2026.

This opinion was prepared by: Prof. Dr. Ivan Georgiev Georgiev – IICT-BAS, in my capacity as a member of the scientific jury for professional field 4.6 Informatics and Computer Science (Open Science and Innovation in Digital Cultural Heritage), in the competition pursuant to Order No. 87 of September 8, 2026, issued by the Director of the Institute of Mathematics and Informatics-BAS.

A single candidate submitted documents to participate in the announced competition:

Assoc. Prof. Dr. Milena Petrova Dobreva, IMI-BAS

1. Submitted Documents

The documents submitted by the candidate for the competition comply with the requirements of the Law on Scientific Research and Academic Staff (ZRASRB), the Regulations for the Implementation of the Law on Scientific Research and Academic Staff (PPZRASRB), and the Rules on the Conditions and Procedures for Awarding Academic Degrees and Holding Academic Positions at IMI-BAS.

The documents are well-structured and formatted. To participate in the competition, the candidate, Assoc. Prof. Milena Dobreva, submitted a list of a total of 18 publications in international and national scientific journals and scientific forums. The documents submitted for this competition show that Assoc. Prof. Milena Dobreva, meets the requirements of Article 24 of the Law on the Academic Staff of the Republic of Bulgaria (ZRASRB) and Article 53 of the Regulations for the Implementation of the Law on the Academic Staff of the Republic of Bulgaria (PPZRASRB) for holding the academic position of "professor."

As a member of the scientific jury, I have received all documents attached to the application submitted to the Director of the Institute of Mathematics and Informatics—Bulgarian Academy of Sciences (IMI-BAS) by the candidate in the competition, Assoc. Prof. Milena Petrova Dobreva, Ph.D.

2. Information about the Candidate

Milena Dobreva earned a Master's degree in Informatics from Sofia University "St. Kliment Ohridski" in 1991. In 1999, she earned her Ph.D. in the scientific specialty 01.01.12 Informatics with a dissertation titled "Modeling Variation in Old Bulgarian Texts". From 2001 to 2008, she worked as an associate professor at the Institute of Mathematics and Informatics (IMI)-BAS; from 2008 to 2012, he was a researcher at the University of Strathclyde in Scotland; from 2012 to 2017, he was an associate professor at the University of Malta; from 2017 to 2020, he was an associate professor at the UCL branch in Qatar; and since 2020 Until 2022, she served as the scientific supervisor of a research group (R3) at Sofia University "St. Kliment Ohridski." Since 2023, she has been an associate professor at the University of Strathclyde, Scotland, and since 2025, she has been an R4 researcher and project leader of the FOCUS project "Fostering Digital Cultural Heritage via Open Innovation and Open Science" at the Institute of Mathematics and Informatics (IMI) of the Bulgarian Academy of Sciences (BAS).

3. General Characteristics of the Candidate's Scientific Works and Achievements

To participate in the competition, Assoc. Prof. Milena Dobreva has submitted all required documents, lists, and reports.

Regarding fulfillment of the minimum requirements for a candidate in the competition for the academic position of "professor" at the Institute of Mathematics and Informatics (IMI) of the Bulgarian Academy of Sciences (BAS), she has submitted:

– a defended doctoral degree (50 points earned under Group A);

– 3 publications with an Impact Factor (IF) and 1 publication with an SJR (130 points, with 100 points required under Group B);

– 14 publications indexed in Scopus, of which 10 have an SJR (248 points, with 220 points required under Group D);

– 47 citations in Scopus for 9 of her publications (282 points, with 140 points required under Group E);

–participation in 2 national and 3 international scientific or educational projects; leadership of 2 national projects and of the Bulgarian team in 3 international scientific or educational projects;

publication of 5 textbooks and 4 teaching aids used in the school system (550 points, with a requirement of 150 points under Group E).

The requirement of Article 3, Paragraph 1, Item 4 of the Regulations on the Evaluation of Scientific and Academic Activity at the Institute of Mathematics and Informatics (IMI), which stipulates that, based on the publications submitted for the competition, the candidate must have at least 12 publications in journals with an Impact Factor (IF) or SJR, has been met. The publications, citations, and other evidence presented under the various criteria were not used to obtain the educational and scientific degree of "Doctor" or in the procedure for appointment to the academic position of "Associate Professor." The candidate has over 7 years of work experience as an "associate professor" at the Institute of Mathematics and Informatics (IMI), thereby fully satisfying the requirement of Article 29, paragraph 1, item 2 of the Law on the Academic Staff of Bulgarian Higher Education Institutions (ZRASRB).

4. A substantive analysis of the candidate's scientific and applied scientific achievements as presented in the materials submitted for the competition

The publications submitted for the competition demonstrate a consistent contribution to informatics in the field of developing and validating algorithms to improve information retrieval and approaches to working with data and information infrastructures. The results obtained have been applied in the context of digital cultural heritage and open science.

The scientific contributions of Assoc. Prof. Milena Dobreva are related to the following five thematic areas:

- Computer-based methods for processing, searching, and accessing digital cultural heritage;
- User models, requirements, and evaluation of digital information systems;
- Collections as data, semantic connectivity, and open infrastructures for digital cultural heritage;
- Open science, citizen science, and collaborative knowledge creation;
- Education and competencies for data analysis in digital cultural heritage.

For each thematic area, the research problem, the specific scientific and applied scientific contributions, and the publications in which they are presented have been outlined.

5. Critical Comments and Recommendations

I have no critical comments regarding the formatting of the candidate's documents.

6. Personal Impressions of the Candidate

I know the candidate and have an excellent impression of the professionalism, creativity, dedication, and thoroughness in the work of Assoc. Prof. Milena Dobreva.

CONCLUSION

Having reviewed the materials and scientific works submitted for the competition, and based on an analysis of their significance and the scientific and applied scientific contributions they contain, I confirm that the scientific achievements meet the requirements of the Law on the Scientific Research Activity of the Republic of Bulgaria (ZRASRB), the Regulations for its Implementation, and the relevant Regulations of the Bulgarian Academy of Sciences and the Institute of Mathematics and Informatics for the candidate's appointment to the academic position of "professor" in the scientific field and professional discipline of the competition. The candidate meets the minimum national requirements in the professional field, and no plagiarism has been found in the scientific works submitted for the competition.

Based on the foregoing, I **strongly recommend** that the Scientific Jury propose to the Scientific Council of the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences that it elect Assoc. Prof. Dr. Milena Petrova Dobreva, to the academic position "professor" in professional field 4.6. Informatics and Computer Science, scientific specialty Informatics (Open Science and Innovation in Digital Cultural Heritage) within the "SofTIS" department, IMI-BAS.

November 3, 2026 Opinion prepared by: Prof. Dr. Ivan Georgiev