STATEMENT

on a competition for occupying the academic position of "Professor"

in higher education area:	4. Natural Sciences, Mathematics and Informatics
professional field:	4.6. Informatics and Computer Sciences
scientific specialty:	Informatics (Open Science and Innovations in Digital Cultural Heritage)
announced in:	State Gazette issue 63 of 10.07.2026 and on the website of IMI
for the needs of:	Institute of Mathematics and Informatics (IMI), "Software Technologies and Information Systems" department

The statement is prepared by: Dr. Silvia Nikolaeva Gaftandzhieva, Associate Professor

at the University of Plovdiv Paisii Hilendarski

in her capacity as a member of the scientific jury for the competition, according to Order No. 87/08.09.2026 of the Director of IMI.

The only candidate who has submitted documents for participation in the announced competition is **Assoc. Prof. Dr. Milena Petrova Dobreva**

I. General description of the submitted materials

1. Application Details

The documents submitted by Assoc. Prof. Dobreva for the competition comply with the requirements of the Act on the Development of the Academic Staff in the Republic of Bulgaria (ADASRB), the Regulations for the Application of ADASRB (RAADASRB), the Regulations for the conditions and order for acquiring scientific degrees and occupying academic positions in BAS, and the Regulations for the conditions and order for acquiring scientific degrees and occupying academic positions in IMI at BAS.

For participation in the competition, the candidate has submitted:

- professional curriculum vitae in European format;
- copies of a higher education diploma;
- copy of a diploma for the acquired Educational and Scientific Degree "Doctor" (PhD);
- full list of scientific publications;
- list and copies of scientific publications for participation in the competition;
- report on the original scientific contributions in the publications for participation in the competition;

- summaries of the scientific publications for participation in the competition in Bulgarian and English;
- full list of noted citations;
- list of citations for participation in the competition;
- copy of the competition announcement in the State Gazette;
- certificate of professional experience in the specialty;
- certificate for the academic position of "Associate Professor";
- list of scientific research projects;
- list of published textbooks and teaching aids;
- standard report on the fulfillment of the minimum national requirements under Art. 2b, Para. 2 and 3, and the requirements under Art. 2b, Para. 5 of the ADASRB, as well as the minimum requirements of IMI - BAS;
- standard declaration in connection with Art. 24, Para. 1, Item 3 of the ADASRB;
- declaration of consent for the storage and processing of personal data.

The documents of Assoc. Prof. Milena Dobreva are prepared in accordance with the requirements of the Regulations for the conditions and order for acquiring scientific degrees and occupying academic positions in IMI at BAS. Official notes for project participation and published textbooks and teaching aids are not attached to the documents.

2. Candidate Details

Assoc. Prof. Dr. Milena Dobreva has a higher education - Educational and Qualification Degree "Master" in Informatics, completed in 1991 at Sofia University "St. Kliment Ohridski". In 2000, after a successful defense of a dissertation on "Modeling Variability in Old Bulgarian Texts", she acquired the ESD "Doctor" in the scientific specialty Informatics, and in 2001 – the academic title "Senior Research Associate Second Degree". The candidate has worked as an associate professor at IMI-BAS and the University of Strathclyde.

3. General characteristics of the candidate's scientific works and achievements

The scientific research activity of Assoc. Prof. Dr. Milena Dobreva and the topics of her submitted scientific works are in the field of the competition. To fulfill the minimum requirements for participation in the competition for the academic position of "Professor" at IMI-BAS, she has presented:

- defended "Doctor" degee (50 points fulfilled under group A);
- 3 publications with IF (2 with Q2 and 1 with Q3) and 1 with SJR (130 points, against a required 100 points under group B);
- 14 publications indexed in Scopus, 9 of which have an SJR. Publication 7 (Birrell, D., Dobreva, M., Ünal, Y., Feliciati, P. Constituencies of use: Representative usage scenarios in international digital library user studies, a case study on Europeana. (2010) ELPUB 2010 - Publishing in the Networked World: Transforming the Nature of Communication, 14th International Conference on Electronic Publishing, pp.

245-257. ISBN: 9789522320865) has no SJR for 2010 and 8 points must be deducted (240 points, against a required 220 points under group G);

- evidence for 47 citations in Scopus and/or WoS (282 points, against a required 140 points under group D);
- participation in 2 national and 3 international scientific or educational projects, management of 2 national and the Bulgarian team of 3 international projects, 5 published textbooks, and 4 teaching aids. The points for the published textbooks and teaching aids were not divided by the number of co-authors, so 213.33 points must be deducted. After deducting the points, the required points for group E are exceeded (336.67 points, against a required 150 points under group E).

The requirement of Art. 3, Para. 1, Item 4 of the IMI Regulations (that the candidate must have at least 12 publications in journals with IF or SJR from the publications submitted for the competition) is fulfilled. All submitted publications were published after the candidate was appointed to the academic position of "Associate Professor". The submitted publications, citations, and other evidence across various indicators were not used for acquiring the educational and scientific degree "Doctor", nor in the procedure for occupying the academic position of "Associate Professor".

The candidate has over 25 years of professional experience in the position of "Associate Professor" at IMI, which fully satisfies the requirement of Art. 29, Para. 1, Item 2 of ADASRB.

4. Content analysis of the scientific and applied scientific achievements of the candidate contained in the competition materials

The contributions are distributed into five thematic areas that cover contemporary trends in informatics, computer sciences, and their application in digital cultural heritage and open science:

- Computational methods for processing, searching, and accessing digital cultural heritage;
- User models, requirements, and evaluation of digital information systems;
- Collections as data (Datafication), semantic interoperability, and open infrastructures for digital cultural heritage;
- Open science, citizen participation, and co-creation of knowledge;
- Education and competencies for data analysis in digital cultural heritage.

The following stand out as the most significant **scientific contributions**:

- Developed and experimentally validated approaches for automatic categorization on a real institutional repository.
- Conducted studies integrating user behavior observation, scenarios and use cases, prioritization of digitization, and assessment of use, value, and impact.

- Proposed a conceptual framework for citizen science in the humanities, placing digital environments and e-infrastructures at the center of data management, communication, and collective knowledge creation.
- Formulated and operationalized a transition from digital collections to large-scale e-infrastructures such as data spaces, examining aspects related to semantic connectivity and Wikidata.
- Analyzed the specifics of applying citizen science in humanities research and summarized observations on applying approaches based on open science and innovation.

The following stand out as the most significant **applied scientific contributions**:

- Created specialized software solutions and algorithms, including the information retrieval system DuoSearch for historical documents and methods for post-OCR correction of digitized historical texts with proven quality improvement.
- Developed a methodology for constructing use scenarios in digital cultural heritage.
- Proposed an approach for prioritizing the digitization of special collections based on end-user needs.
- Developed a framework for evaluating specialized parliamentary archival digital resources.
- Analyzed and systematized the role of Wikidata and FAIR principles in the workflows of GLAM institutions (galleries, libraries, archives, and museums).

The following stand out as the most significant **applied contributions**:

- Created and validated a checklist for creating and evaluating digital collections, applicable to small and medium-sized institutions.
- Proposed an approach to improve the training and education of professionals, university students, and school students, focused on computational skills, data literacy, and the applicability of artificial intelligence methods in the field of digital heritage.

The submitted publications demonstrate a consistent contribution to informatics through the development and validation of algorithms to improve user experience and information retrieval, as well as approaches for working with data and information infrastructures. The research builds a consistent transition from user-oriented digital libraries to computational access, datafication, and adherence to FAIR principles. The obtained results were used in the projects FOCUS, DISCmap, DISTILL, ECHOING, and for building the European digital library for cultural content Europeana and other initiatives, representing a significant contribution in the field of the announced competition and emphasizing the innovative and applied nature of the candidate's research work.

5. Evaluation of project work and other activities

Assoc. Prof. Milena Dobreva has participated in 2 national projects (KP-06-DB/6 "Disruptive Technologies in Innovation Labs for Digital Cultural Heritage" (DISTILL), Preservation of Complex Objects Symposia (POCOSS)) and 3 international projects (632694 Civil Epistemologies Development of a Roadmap for Citizens Researchers in the Digital Culture, ECP-2005-CULT-038042 DIGMAP – Discovering our past world with digitised maps, 216736 SHAMAN: Sustaining Heritage Access through Multivalent Archiving). The candidate has managed 2 national projects (K900232 Community building in Decolonising Galleries Libraries Archives Museums (GLAMs) – DeCoGlam, 5258 Bringing the Digital Skills Gap of Records Officers in Zambia in Line with the eGovernance) and the Bulgarian teams of 3 international projects (Europeana User and Functionality Study, 509754 Knowledge transfer for digitization of cultural and scientific heritage in Bulgaria, Text Variety in Witnesses of Medieval Texts: Study from Cooperative Writing Perspective).

6. Conclusion on the application

The scientific achievements of Assoc. Prof. Milena Dobreva meet the requirements of ADASRB, RAADASRB, the Regulations of BAS, and the specific requirements of the Institute of Mathematics and Informatics at BAS. The presented results are sufficient to meet the minimum national and institutional requirements in the professional field, and no plagiarism has been found in the scientific works submitted for the competition. I give my positive assessment of the application.

II. General conclusion

After reviewing the materials and scientific works submitted for the competition, analyzing their significance and the scientific, applied scientific, and applied contributions contained therein, I find it justified to give my positive assessment and recommend that the Scientific Jury propose to the Scientific Council of the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences to elect Assoc. Prof. Milena Petrova Dobreva to occupy the academic position of "Professor" in the higher education area 4. Natural Sciences, Mathematics and Informatics, professional field 4.6. Informatics and Computer Sciences, scientific specialty Informatics (Open Science and Innovations in Digital Cultural Heritage).

Plovdiv — Statement prepared by:

29.10.2026 — (Assoc. Prof. Dr. Silvia Gaftandzhieva)