

Report

on a competition for the occupation of the academic position „Professor“
in the professional field 4.6 Informatics and Computer Science,
specialty Informatics (Contemporary technologies for preserving, accessibility and
protection of scientific and cultural heritage)
announced in the State Gazette, № 102/01.12.2020,
for the needs of the Institute of Mathematics and Informatics - (IMI),
department „Software Engineering and Information Systems“

by Prof. Dr. Kalinka Kaloyanova

Institute of Mathematics and Informatics - BAS

I am presenting this report as a member of the Scientific jury in the above-mentioned competition, on the base of the order № 11/29.01.2021 of the Director of the Institute of Mathematics and Informatics (IMI) - BAS, which is based on the decision of the Scientific Council of IMI (Protokol №1, 22.01.2021).

The only candidate who has submitted documents for participation in this competition is Associate Professor Dr. Galina Todorova Bogdanova from the Institute of Mathematics and Informatics - BAS.

As a member of the jury I have received the following documents:

1. Application to the Director of the Institute of Mathematics and Informatics;
2. CV;
3. Copy of higher education diploma and diploma for postgraduate specialization;
4. Copy of diploma for the educational and scientific degree “Doctor”;
5. List of all scientific publications and other scientific and applied results;
6. List of the scientific publications for the participation in the competition;
7. Author's reference for the scientific contributions of publications presented for the participation in the competition;
8. Abstracts of the scientific publications for participation in the competition;
9. Copies of publications for participation in the competition;
10. List of all citations;
11. List of citations for participation in the competition;

12. Copy of State gazette No 102, 2020;
13. Certificate of internship in the specialty;
14. Certificate for academic position "Associate Professor";
15. Information for doctoral students, participation in projects, and other activities;
16. Reference for the fulfillment of the minimum national requirements;
17. Declaration for the non-use of the documents for the competition in other procedures.

Details of the applicant

Galina Bogdanova received the M.Sc. degree from the Technical University of Sofia, Bulgaria in 1981 (Applied Mathematics, 1982) and the Ph.D. degree in Informatics from the Institute of Mathematics and Informatics of the Bulgarian Academy of Sciences, Sofia in 2000. She started her career as a programmer at Veliko Tarnovo Territorial Computing Center in 1981. From 1989 until now she has worked consecutively as a Mathematician, Research Associate, Senior Research Associate II degree, and Associate Professor at the Institute of Mathematics and Informatics - Bulgarian Academy of Sciences.

General presentation of the submitted materials.

It is clear from the presented documents that Assoc. Prof. Bogdanova meets the requirements for the occupation of the academic position of "Professor", specified in the Act for the Development of the Academic Staff in the Republic of Bulgaria, the Rules of the Implementation of the Act for the Development of the Academic Staff in the Republic of Bulgaria and the Rules on the Terms and Requirements for Acquisition of Academic Degrees and Occupation of Academic Positions of IMI-BAS:

- She has a Ph.D. degree: diploma No 26752/ 26.06.2000, Higher Attestation Council.
- Five publications that meet the group „B“ requirements (100 points) are indexed in Scopus and published in journals/ series with SJR. The publications were made in the period 2018-2020 and are not used for other procedures.
- Four of the publications that meet the requirements of the group „Г“ are published in editions with Impact Rank (SJR), two publications – in journals with IF (Q2 and Q3), and two are book chapters. These publications were made in the period 2003-2020 and are not used for other procedures. The total number of points - 324, exceeds significantly the required minimum (220 points).
- 11 publications have either IF or SJR is 11, which covers the specific requirement Art. 3 (1) of the Rules on the Terms and Requirements for Acquisition of Academic Degrees and Occupation of Academic Positions of IMI-BAS.

- A list of 44 citations visible in Scopus is submitted to cover the requirements of group „D“;
- She has been working in the Institute of Mathematics and Informatics for more than 32 years, since 2002 she has held the academic position of Associate Professor in IMI.
- Assoc. Prof. Bogdanova was the scientific supervisor of 4 successfully defended Ph.D. students. She managed or had participated in a number of projects, four of them funded by the NSF, these results significantly exceed the points in group “E”;
- No plagiarism has been found in her scientific works.

In this way, the criteria of IMI-BAS have been met and exceeded in some of the indicators, therefore the minimum national requirements according to the Rules for the Implementation of the Act on the Development of the Academic Staff in the Republic of Bulgaria for the professional field 4.6 "Informatics and Computer Sciences" have been achieved, too.

General characteristics of the applicant's scientific and applied activities

Galina Bogdanova has submitted 25 publications. The publications were made in the period 2003-2020. She co-authors all papers. I assume that the candidate's contribution to the submitted collective publications is at least comparable to that of the other co-authors, considering that she was the first author in seventeen of them.

Twenty three papers and two book chapters are submitted, nine of them are indexed in SJR ranked editions, two are in the journals with IF. Five publications with SJR are submitted for group “B“ requirements.

The publications, submitted for this competition, present the candidate research activities in several directions.

Publications 6, 18, 21, and 22 are more theoretical and present research related to coding theory (methods and algorithms for research and education). Publications 2, 19, 20, and 25 address more general issues related to methods for information processing, analysis and protection and their applications to digital archives.

Integrated (interdisciplinary) approaches based on modern IT for the preservation of scientific and cultural heritage in specialized repositories are described in articles numbered 7, 17, 19, 23, 24. They have been successfully applied to the digitalization of the Bulgarian folklore heritage. The candidate also works in the direction of creating tools and platforms for the implementation of the studied approaches - these results are described in publications 4, 5, 7, and 10.

Several publications present research related to information processing in health care - 3, 12, 16. Particular attention should be paid to works aimed at ensuring platform accessibility and training for people with special needs. Significant results related to

providing an accessible web-based environment for people with disabilities (mainly people with visual impairments) are presented in Articles 1, 8, 9, 11, 13, 14, 15, 16, 24. The software implementations are additionally supported with detailed documentation.

The achieved results are substantial and they have reflected appropriately, according to the two lists of citations: for the competition - 44 citations in Scopus, as well as an additional list of 281 citations, exported from the SONIX system of BAS. The research areas are among the current ones.

The presented list of four successfully defended doctoral students, supervised by the candidate; the list of the provided lectures; the participation in a significant number of projects, schools, seminars, exhibitions, examinations, etc. indicate the various activities of Assoc. Prof. Bogdanova.

Critical notes and recommendations

In addition to the achieved results, I would recommend Assoc.Prof. Bogdanova more active teaching in universities and in her future work to aspire to single-authored publications, too.

Personal impressions

I haven't personal impressions of Assoc.Prof. Bogdanova.

Conclusion on the application

In conclusion, the documents and materials presented by |Assoc. Prof. Dr. Calina Bogdanova declare results that meet completely all requirements for the academic position of " Professor" of the Act of the Development of the Academic Staff of the Republic of Bulgaria, the Rules for its implementation, as well as of the Rules on the Terms and Requirements for Acquisition of Academic Degrees and Occupation of Academic Positions of IMI-BAS in the scientific field 4. Natural Sciences, Mathematics and Informatics, professional field 4.6. Informatics and Computer Sciences, and even exceed some of the requirements.

I give a positive assessment of the application of Assoc. Prof. Galina Bogdanova.

GENERAL CONCLUSION

Based on the above, I strongly recommend the Scientific jury to vote on a proposal to the Scientific Council of the Institute of Mathematics and Informatics -BAS to select Assoc. Prof. Dr. Galina Todorova Bogdanova for the academic position of "Professor" in the professional field 4.6 Informatics and Computer Science.

March, 26, 2021

Signature:

/Prof. Dr. K. Kaloyanova/