OPINION

for a competition for acquiring academic position "Associate Professor"

in the field of higher education:	4. Natural sciences, Mathematics, and Informatics
professional field:	4.6. Informatics and Computer Science
scientific specialty:	Informatics (Context-based Information Systems)
published in:	State Gazette no. 91 / 02.11.2021 and on the IMI website
for the needs of:	Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences (IMI-BAS) Software Technologies and Information Systems Department
prepared by:	Professor Dimitar Christozov, D. Sc.
member of the scientific jury of the competition, according to:	Order № 341 / 23.12.2021 of the Director of IMI-BAS

Only one candidate has submitted documents for participation in the announced competition:

Boris Shishkov, Ph. D.

I. General description of the submitted materials

1. Details of the application

The application of Dr. Boris Shishkov includes one monographs and 20 publications in reviewed editions. The total number of candidate's publications are 79, including three monographs, 70 reviewed publications, one in a national conference and five in non-reviewed editions. Publications, presented for this competition have not been used in the procedure for awarding doctor degree.

The monographs and ten of presented for this competition publications are published in the last five years. The monograph and one of the papers are authored solely by Boris Shishkov, and he is the first author in all joint papers. Submitted papers are published in two separate periods: between 2006-2010 and after 2016.

The leading role of Dr. Boris Shishkov in research resulted in these publications is out of doubt.

2. A short CV

The MSc. degree of Boris Shishkov is from University of Sofia in the field of Management Information Systems. His doctoral degree is from University of Delft, Nederland in the field of Informatics. He made a postdoc at University of Twente, Nederland and served as adjunct faculty in University of Delft, and part-time associate professor at SULSIT, Sofia. Since 2015 he is assistant professor at Institute of Mathematics and Informatics, BAS.

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

The area of Dr. Shishkov's works – Context-based Information Systems – become popular in recent years. The evolution of computer technologies moved the focus of software solutions optimization from improvement of algorithmic and technical aspects toward optimizing the way they are applied and used. This put the business problem as leading in developing computer information systems and directed the research toward investigation of approaches and modeling in development. "Context-based Information Systems" placed the business problem, in the context of its appearance and the entire sat of relations, as leading in designing and developing Management Information Systems. Compatibility of models, describing the business process, with modeling the software architecture, is one of the major success factors for such projects. Contribution of the candidate in developing the theoretical framework of context-based information systems are visible and out of doubt. The applicability value of presented results is also significant.

I accept the submitted by Boris Shishkov self-assessment for contributions in his scientific works. The two areas, identified by the candidate, "Analyzing, modeling, and designing, and optimizing of technological/business processes", and "Software designing, specification and structuring" – are closely intertwined in his works. The second area refers to software solutions in building Information systems, which is in the scope of professional field 4.6 "Informatics and Computer Sciences".

Requirement for at least 5 publications in editions with IF or SJR is also satisfied.

Research results of Dr. Shishkov are reflected in works of other authors. Submitted list includes 27 citations of 6 of presented papers, from both periods. The total number of noticed citations is 119 for 35 publications of the candidate.

4. Evaluation of work on projects and other activities

The candidate had submitted information for participation in eight projects since 2001. Projects are international and practically oriented. There is no data regarding role of the candidate for the success of those projects, but, based on their description, one can conclude that candidate's professional expertise had contributed significantly.

Dr. Shishkov have participation in juries for evaluation of doctoral theses; in edited books; and organizing scientific forums.

Teaching is also included in his academic activities. He had participated in supervision of master and doctoral thesis and contributed to instruction activities in universities in Delft and Twente, including evaluation of exams, lecturing and leaded seminars. In the last years he teaches at SulSIT as part-time associate professor.

5. Content analysis of the scientific and applied research of the candidate, contained in the materials for participation in the competition

Presented works characterized Boris Shishkov as a researcher emphasizing the diversity of properties of investigated objects, in this case – the processes in a given business environment, attempting to cover complete complexity of factors, influencing their effectiveness. This integrated approach assumes trans-disciplinarity of his research. The proposed models allow optimization of processes under conditions of dynamically changing environment and digital control. In the works of Dr.

Shishkov are successfully combined deep understanding of factors leading to success and effectiveness of business processes, with approaches and architectures to design computer information systems to manage them. Candidate successfully combined well justified theoretical models, with their applicability.

The adopted holistic approach in investigating and modeling the processes in given business eco system requires diverse competences and achieved results are significant and innovative. Contributions, theoretical as well as scientific-applicable, are visible and indisputable, reflected in works of scientists in this field.

6. Critical remarks and recommendations

I would recommend the candidate to be more active in promoting his results in Bulgaria. Practically, has no publications in Bulgarian, even those presented on forums in Bulgaria are written in English.

7. Personal impressions of the candidate

I know Dr. Boris Shishkov as a student in my classes at Faculty of Economics and Business Administration at Sofia University and as organizer and major inspirator of the chain of conferences "Business Modeling and Software Design (BMSD)".

My personal impressions are for a completed scientist possessing deep knowledge of the achievements and results in the field in which he works, conducting research by following the best professional practices.

8. Conclusion for this application

Presented achievements meet the requirements of the Law for development of the academic personnel of the Republic of Bulgaria and the Regulations on it, the Regulations for the conditions and the procedure for acquiring scientific degrees and for occupying academic positions at the Bulgarian Academy of Sciences and the specific regulations for the IMI-BAS. As well as the minimal national requirement for the professional field 4.6 "Informatics and Computer Science". There are no evidences for plagiarism in presenting scientific works.

II. Overall conclusion

In conclusion, I have complete confidence to vote FOR election of Dr. Boris Blagovestov Shishkov for the academic position "Associate Professor" in professional field 4.6. "Informatics and computer Science" at Institute of Mathematics and Informatics of Bulgarian Academy of Sciences.

03.02.2022   Signature:

Sofia   (Dimitar Christozov)