

OPINION

on the competition for holding the academic position "Associate Professor" at IOMT-BAS, in professional field 4.1. Physical sciences, scientific field "Physics of wave processes", published in the Bulgarian State Gazette, issue 79 of October 4, 2022

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member of the scientific jury, appointed by orders №RD-15717 of December 1, 2022,
and №RD-15728 of December 7, 2022 of the Director of IOMT-BAS*

Only one candidate – Assist. Prof. Dr. Branimir Ludmilov Ivanov – submitted documents for participation in the announced competition at IOMT-BAS for holding the academic position "Associate Professor" in professional field 4.1. Physical sciences ("Physics of wave processes").

1. General description of the presented materials

The materials, prepared by the candidate, are in accordance with the *Development of Academic Staff in the Republic of Bulgaria Act (DASRBA)* and the *Regulations on the conditions and order for acquiring scientific degrees and for holding academic positions in IOMT-BAS*, and include all required documents. Assist. Prof. Dr. Branimir Ivanov is registered in the *Register of the academic staff in the Republic of Bulgaria*, maintained by the National Centre for Information and Documentation (<https://ras.nacid.bg/dissertation-preview/41050>). Data on his academic degree (PhD; PhD thesis titled "Multicolor holographic recording and holographic optical elements") and academic position (Assist. Prof. at IOMT since 2013) are available.

Assist. Prof. Dr. Branimir Ivanov is a co-author of 37 publications in scientific journals, 32 of which are published in indexed journals with an impact factor/impact rank. Seven of the publications are included in his PhD thesis. In the current competition, he participates with 24 scientific works, which are not part of the PhD dissertation. The presented scientific papers are co-authored and published in WoS/Scopus indexed journals. Five publications are in journals of category Q1, 2 publications - Q2, 4 publications – Q4, and 13 publications in journals with impact rank (SJR). The total number of citations is 80 as of the date of preparation of the reference by the candidate. The Hirsch index of Assist. Prof. Dr. Branimir Ivanov is 5. The candidate has extensive experience as a project member in national and international projects.

The total number of points according to Table 2, Appendix 1, is 457 and exceeds the minimum required points (430) for the academic position "Assoc. Prof.". By groups of indicators, the requirements are also met.

2. General characteristics of the candidate's research activity

The review of the presented materials shows that the scientific interests of Assist. Prof. Dr. Branimir Ivanov are in the field of interferometric systems, diffraction optics, digital

holography and optical metrology. The scientific contributions in the publications for participation in the competition are presented in the report prepared by the candidate. The scientific publications included in group “C” indicators (equivalent to habilitation thesis publications) are 9 in number and cover research on the topic in a fairly wide time interval (2003-2017).

The candidate's main scientific contributions, described in the reference for the original scientific contributions in the scientific publications under this group of indicators, are 2 groups and are briefly expressed in:

- Development of new or improvement of known interferometric methods for determining spectral characteristics of optical sources (publications A1-A3; 2003-2007);
- Development of improved holographic and interferometric methods for visualization and sample control (publications A4-A9, 2011-2017). Demonstration of the merits of the proposed and developed techniques for various applications.

Fifteen publications are included in the author reference for scientific contributions in the publications under indicator “D”, and they are divided into 3 main groups:

- Numerical methods for the analysis of data from dynamic speckle measurements. (publications B1-B11);
- Profilometric methods for remote determination of the shape and three-dimensional visualization of objects (publications B12 and B13).
- Monitoring and control of drying processes through dynamic speckle analysis (publications B14 and B15).

The author reference correctly reflects the scientific contributions of the candidate. In general, they can be characterized as enriching the subject by using new/improved techniques and methods and obtaining new results. The data on the publication activity of Assist. Prof. Dr. Branimir Ivanov show the evolution of his scientific interests and are proof of a consistently developing scientific potential in a research field with a highly innovative focus.

3. Critical remarks and recommendations

I have no critical remarks on the materials submitted for evaluation.

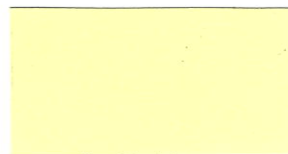
4. Conclusion

Assist. Prof. Dr. Branimir Ivanov submitted for participation in the competition sufficient material in terms of volume and quality, exceeding the requirements for occupying the academic position “Associate Professor” according to *DASRBA*, the Regulations for the implementation of *DASRBA*, as well as the minimum requirements of BAS and, respectively, IOMT, to the scientific and teaching activities of the candidates for the academic position “Associate Professor”. The scientific research of Assist. Prof. Dr. Branimir Ivanov is in the field of holographic methods for recording and restoring digital and analog information, profilometry, holographic and laser interferometry for measurement and non-destructive analysis. He has the necessary scientific qualifications and is a specialist with extensive practical experience in the field.

I confidently give a positive assessment to the candidates and recommend to the members of the Scientific Jury and of the Scientific Council of IOMT-BAS to choose Assist. Prof. Dr. Branimir Ivanov for “Associate Professor” in professional field 4.1. Physical sciences (“Physics of wave processes”).

Sofia

January 12, 2023



/Assoc. Prof. Silvia Angelova, PhD/