

OPINION

on the competition for the academic position of Associate Professor in the field of higher education 5. Technical Sciences, professional field 5.1. Mechanical Engineering (Robotic Devices with Applications in Medicine), announced in the *Darzhaven Vestnik*, issue no. 39 dated May 13, 2025.

by

prof. Tanio Tanev, Institute of Robotics – Bulgarian Academy of Sciences, Member of the Scientific Jury, approved by Order No. 75 dated 16 July, 2025, issued by the Director of the Institute of Robotics.

1. General Description of the Submitted Materials

For the announced competition, documents were submitted by one candidate – Chief Assistant Professor Dr. Veronika Ivanova Atanasova-Georgieva from the Institute of Robotics at the Bulgarian Academy of Sciences (BAS). The candidate submitted the following documents:

- Detailed CV in the European format;
- Copy of the PhD diploma;
- List of scientific publications not included in the dissertation for the PhD degree;
- List of inventions and other scientific-applied results;
- List of citations;
- Abstracts of scientific publications in Bulgarian and English;
- Copies of all scientific publications submitted for the competition;
- Detailed report on meeting the minimum national requirements for the academic position of Associate Professor, according to Article 2b, paragraphs 2 and 3 of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), for the scientific field and for registration in NACID;
- Report on original scientific contributions;
- Other materials and documents;
- Declaration of absence of plagiarism in scientific works;
- Completed Declarations (Appendix 1 and Appendix 2) according to the Internal Rules for the Development of Academic Staff at the Institute of Robotics, BAS.

Fulfillment of Minimum Requirements

Out of the 34 publications submitted for the competition for the academic position of Associate Professor, 11 are classified as equivalent to a monograph and are indexed in Scopus and/or Web of Science. The rest are published in peer-reviewed journals or edited collective volumes. One book and one utility model were also submitted.

The minimum required 50 points from Group A are fulfilled through the dissertation for the PhD degree.

The 11 publications equivalent to a monograph, indexed in Scopus and Web of Science, yield 223 points (after a 5-point correction by the reviewer), exceeding the minimum requirement of 100 points from Group B by more than double. One of these publications is single-authored; in 7 the candidate is first author, in 2 second author, and in 1 third author. They were published between 2020 and 2025.

For Group C, the candidate submitted 23 publications totaling 237.27 points, exceeding the minimum requirement of 200 points. One is a single-authored book; the rest are articles and conference papers, with the candidate being first author in 16 of them.

For Group D, 18 citations from Scopus-indexed publications were submitted, totaling 180 points. Additional citations include 3 from dissertations and abstracts, which are not recognized under the regulations and were excluded. After corrections, the total adjusted points from Group D are 187, exceeding the minimum requirement of 50 points by more than threefold.

Additional materials include project participation, a registered utility model, and awards, which fall under Group E. While not required for the Associate Professor position, they complement the candidate's scientific activity and were considered by the reviewer in the overall assessment.

The candidate's scientometric indicators are: Scopus h-index = 3, Web of Science h-index = 3.

The scientific works are presented and systematized in accordance with the requirements of the regulations, its implementing regulations, and the internal rules of BAS and the Institute of Robotics.

2. Analysis of Scientific Achievements Based on Submitted Materials

The submitted scientific works contain original research results related to: Development of laparoscopic actuating instruments for robots; Robotic system for analysis and control of mechanical properties of biological tissues for laparoscopic surgery; System for data collection, processing, and visualization in medical applications; Conceptual model for a training platform in minimally invasive surgery; Devices for patient monitoring and smart cards containing key data related to patient condition and personalization.

In conclusion, the scientific works of Chief Assistant Professor Dr. Veronika Ivanova Atanasova-Georgieva contain original scientific and applied contributions. Some studies resulted in practical applications, including a registered utility model. The results demonstrate substantial knowledge, experience, and competence in the competition's subject area.

3. Impact of the Candidate's Work on Other Authors

Dr. Atanasova-Georgieva submitted a list of cited articles from Scopus-indexed publications (18 citations) and other citations (6). The reviewer recognizes 18 citations from the first group and 3 from the second group, excluding 3 citations from dissertations and abstracts.

4. Critical Remarks and Recommendations

No fundamental errors or inaccuracies were found in the candidate's works. There are no significant critical remarks regarding the scientific works submitted. From a formal standpoint, the following suggestions are made:

- It would be beneficial to include a complete list of all publications to better characterize the candidate's scientific activity
- There is room for improvement in the technical formatting and consistency of the submitted materials

5. Conclusion

The submitted materials meet the requirements of regulations, its implementing regulations, and the internal rules of BAS and the Institute of Robotics for the academic position of Associate Professor. The candidate's work includes original scientific and applied results. A positive overall evaluation of the submitted materials is expressed.

It is deemed appropriate to recommend to the Scientific Jury and the Scientific Council of the Institute of Robotics at BAS that Chief Assistant Professor Dr. Veronika Ivanova Atanasova-Georgieva be appointed to the academic position of Associate Professor in the professional field 5.1. Mechanical Engineering.

Sofia,

Reviewer:

12 September 2025

/prof. Tanio Tanev/