



OPINION

By: prof. Nikolay Ivanov Stoimenov, Ph.D.; Institute of Information and Communication Technologies at BAS

Concerning: competition for associate professor in Scientific Field 5. Technical Sciences, 5.1. Mechanical Engineering.

1. Information about the contest

The announced competition is for the needs of the "RIMIS" section/laboratory, State Gazette No. 39/13.05.2025. I am included in the composition of the scientific jury for the competition in accordance with Order No. 75/16.07.2025 of the Director of IR-BAS.

2. Brief information about the candidate in the competition

The only candidate in the competition is Senior Assistant Professor Dr. Eng. Veronika Ivanova Atanasova-Georgieva, who works at the Institute of Robotics, BAS. Senior Assistant Prof. Atanasova-Georgieva graduated in 1994 from the Academician Ivan Pavlovich Bardin Technical School of Metallurgy, majoring in Water and Air Purification Technology, and in 2000 she obtained a master's degree in Industrial Engineering and Management from the Faculty of Economics at the Technical University of Sofia. She defended his dissertation on "Laparoscopic Surgical Instruments for Robots" in 2020.

She joined the Central Laboratory of Mechatronics and Instrument Engineering at the Bulgarian Academy of Sciences in 2002 as an engineer. From 2004 to 2011, she was a research associate at the Central Laboratory of Mechatronics and Instrument Engineering at the Bulgarian Academy of Sciences. From 2011 to 2017, she was a senior assistant at the Institute of Systems Engineering and Robotics, BAS. Since 2017, she has held the position of senior assistant at the Institute of Robotics, BAS.

3. Fulfillment of the requirements for occupying the academic position

In accordance with the requirement for compliance with the minimum national requirements under the Regulations for the Implementation of the Law on the Development of Academic Staff in the Republic of Bulgaria, the materials presented in the indicator groups cover the necessary points and requirements, with the points in some indicators being exceeded. In some cases, separation protocols for compliance based on contribution are presented.

4. Evaluation of the educational and teaching activity for the candidate

The scientific papers submitted for the competition are grouped into seven areas as follows: Robotic system for analysis and control of the mechanical properties of biological tissues with application in laparoscopic surgery, Design and development of a system for data collection, processing, and visualization with application in medicine, Training platform for minimally invasive surgery, ECG device, Smart cards, Design of laparoscopic surgical instruments for robots, Device for surgical robots in local tumor therapy.

5. Brief description of the presented scientific works/publications

The candidate's contributions demonstrate a comprehensive and innovative approach to the integration of robotic, software, and training systems in medicine, with an emphasis on laparoscopic surgery, diagnostics, and training. The solutions are aimed at improving healthcare and optimising medical training through the use of modern technologies and an interdisciplinary approach.

The materials provided, as well as the scientific, applied, and original contributions therein, give me reason to believe that they are sufficiently significant for the academic position of "Associate Professor."

6. Remarks and recommendations

In the scientific papers, models provided by the candidate in various directions have been developed, which are theoretically justified. An assessment of their applicability was made.

I believe that the materials provided, as well as the learned, scientific-applied and original contributions in them, are significant enough to occupy the academic position of "associate professor".

7. Remarks and recommendations

I have no critical comments to dispute the candidate's scientific and applied contributions. I would recommend that the candidate focus on publishing in foreign scientific forums in her future work.

8. Conclusion

The materials submitted for the competition and the results presented therein satisfy all requirements of the ADAPRB and the Regulations for its implementation. My assessment of the candidate's overall performance is **positive**.

I strongly recommend that the esteemed Scientific Jury vote on a proposal to the Scientific Council of the Institute of Robotics, BAS, for the election of Senior Assistant Professor Dr. Eng. Veronika Ivanova Atanasova-Georgieva for the academic position of "Associate Professor" in the professional field: 5. Technical Sciences, 5.1. Mechanical Engineering, for the needs of the "RIMIS" section at the Institute of Robotics, BAS.

Date:
15.09.2025
Sofia

Signature:
(Prof. Nikolay Stoimenov, Ph. D.)