

STATEMENT

by prof. Dr. Plamena Ventseslavova Zlateva

Institute of Robotics - Bulgarian Academy of Sciences

on the competition for the occupation of the academic position „Associate Professor“ in scientific area 5. Technical sciences, professional field 5.2. „Electrical engineering, Electronics and Automation“, scientific specialty "Application of the principles and methods of cybernetics in various fields of science" (Social-assistive robotics with elements of artificial intelligence) for the needs of the Institute of Robotics - Bulgarian Academy of Sciences, announced in the State Gazette, number 66 from 12.08.2025

The Statement has been prepared in my capacity as a member of the Scientific Jury in the professional field 5.2. "Electrical Engineering, Electronics and Automation" on a competition for the occupation of the academic position of "Associate Professor" in the section "Interactive Robotics and Control Systems" at the Institute of Robotics at the Bulgarian Academy of Sciences (IR-BAS), according to an Order № 130 / 07.10.2025 of the Director of IR-BAS.

To participate in the competition, a single candidate has submitted documents: **Chief Assist. Prof. Paulina Tsvetanova Tsvetkova, PhD**, from the section "Interactive Robotics and Control Systems" at the Institute of Robotics - BAS.

1. Brief biographical data about the candidate

Paulina Tsvetkova graduated from the "Aleko Konstantinov" high school with foreign language teaching in Pravets. In 2021, she graduated with a Bachelor's degree in "Psychology", and in 2014 with a Master's degree in "English Language and Methodology" from the "Paisii Hilendarski" University of Plovdiv. She obtained the educational and scientific degree "Doctor" by defending a dissertation on the topic "Emotional Intelligence and Career Orientation in Early Adulthood" on 07.04.2022 at the Faculty of Pedagogy of the "Paisii Hilendarski" University of Plovdiv. Paulina Tsvetkova has been a chief assistant at the IR-BAS since September 2022.

2. General information about the submitted documents and the fulfillment of the minimum requirements for occupation of the academic position "Associate Professor"

The documents submitted for the competition by the candidate Dr. Paulina Tsvetkova *comply with the requirements* of 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, the Rules on the terms and conditions for acquiring scientific degrees and for the occupation of the academic positions at the Bulgarian Academy of Sciences, the Internal rules for the development of the academic staff of the Institute of Robotics-BAS.

For participation in the competition the candidate Dr. Paulina Tsvetkova has presented a total of 41 publications, including 20 in publications that are refereed and indexed in the

world-renowned scientific information databases *Scopus* and/or *Web of Science*, 18 of which have already been included and 2 will be included.

In general, the submitted publications are on the topic of the competition.

The candidate Dr. Paulina Tsvetkova has attached a completed reference for the implementation of the minimum requirements for the academic position "Associate Professor" - achieving the required minimum number of points on the set groups of indicators:

A. Ph.D. thesis for acquiring educational and scientific degrees:

(Diploma № 1000504 issued on 20.04.22 by the Faculty of Pedagogy of the Plovdiv University "Paisii Hilendarski" /50 points/.

B. Habilitation thesis (monograph) - scientific publications (not less than 10) in editions that are referenced and indexed in world-famous databases with scientific information:

The candidate has submitted 10 publications, which are referenced and indexed in world-renowned scientific information databases *Scopus* and/or *Web of Science*. The number of points obtained /102.8/ exceeds the required minimum number of points /100/.

G. Scientific publications other than those equivalents to Habilitation thesis:

- G7. Scientific publications in editions that are referenced and indexed in world-famous databases with scientific information:

The candidate has submitted 10 publications, of which 8 have already been included and 2 are in press and will be included in *Scopus* and/or *Web of Science*.

The number of points received is 85.

- G8. Scientific publications in non-referred journals with scientific review or in edited collective volumes:

The candidate has submitted 21 publications. The number of points received is 134.

The total number of points obtained by the group indicator /G/ is 219 and exceeds the required minimum number of points /200/.

D. Citations scientific editions:

- D12. Citations in scientific editions, referenced and indexed in world-famous databases with scientific information:

The candidate has presented 12 citations. The number of points obtained is 120.

The total number of points obtained by the group indicator /D/ is 120 and exceeds the required minimum number of points /50/.

The obtained points on the group indicators show that the candidate Dr. Paulina Tsvetkova *fulfills and even exceeds in some of the indicators the minimum requirements* for the occupation of the academic position "Associate Professor" in the professional field 5.2. "Electrical Engineering, Electronics and Automation".

3. General characteristic of the candidate's proposed contributions

The candidate, Dr. Paulina Tsvetanova Tsvetkova, has proposed contributions in 6 areas for participation in the competition, which I consider to be scientifically applied:

1. Artificial Intelligence and Social-Assisting Robots [B4, B6, B10];
2. Applied Artificial Intelligence - Image Processing and Cultural Heritage [B8, G1, G8];
3. Comparison of different machine learning classifiers for predictive results in data processing and optimization through hyperparameter tuning [G2];
4. Neuroscience and pedagogy: study of the cognitive and emotional state of suggestive pedagogues using EEG and psychological questionnaires [G3];
5. Application of social robotics in psychology: software framework for psychological screening using the social robot Furhat [G4];
6. Assistive technologies for social inclusion of people with intellectual disabilities and autism and future trends in the application of AI-based assistive technologies [B9, G4].

I accept that the proposed scientifically applied contributions *in their entirety are the personal work of the candidate and are significant* for the occupation of the academic position "Associate Professor".

4. Personal impressions about the candidate

I know Dr. Paulina Tsvetkova from the institute's annual scientific sessions as a good and responsible researcher in the field of social-assistive robotics.

5. Conclusion

In conclusion, I declare that the documents and materials submitted for participation in the competition by Chief Assist. Prof. Paulina Tsvetanova Tsvetkova, PhD presents results that fully cover the set of requirements for the academic position "Associate Professor" according to 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, the Rules on the terms and conditions for acquiring scientific degrees and for the occupation of the academic positions at the BAS, the Internal rules for the development of the academic staff of the Institute of Robotics – BAS in area of higher education 5. Technical sciences, professional field 5.2. "Electrical engineering, Electronics and Automation".

I am confidently giving my *positive assessment* and I *recommend* to the Scientific Jury to propose to the Scientific Council of the Institute of Robotics – Bulgarian Academy of Sciences to *elect* **Chief Assist. Prof. Paulina Tsvetanova Tsvetkova, PhD** for the *academic position "Associate Professor"* in the professional field 5.2. "Electrical engineering, electronics and automation", scientific specialty "Application of the principles and methods of cybernetics in various fields of science" (Social-assistive robotics with elements of artificial intelligence).

06.11.2025
Sofia

Prepared the statement:

/Prof. Dr. Plamena Zlateva/