



OPINION

with reference to the competition for the occupation of the academic position of

ASSOCIATE PROFESSOR

In the field of higher education 5. Technical sciences, professional specialty 5.1. Machine engineering, scientific specialty Applied mechanics (mechanics of coatings)

Announced in State gazette, issue 5 from 17.01.2020 г.

With single applicant, Senior assistant PhD Eng. Polina Ilieva Milusheva-Mandadjieva

Scientific Jury member: Associate Professor Yovka D. Nikolova
University "Prof.Dr. Asen Zlatarov" – Bourgas

1. General information and biographical data

PhD Eng. Polina Milusheva-Mandadjieva is the only applicant in the competition for the occupation of the position of Associate professor in the field of higher education 5. Technical sciences, professional specialty 5.1. *Machine engineering, scientific specialty Applied mechanics (mechanics of coatings)* opened by the University "Prof.Dr. Asen Zlatarov" – Bourgas for the Department of "Electronics, electrical engineering and machine engineering", Faculty of technical sciences. The applicant has completed two master's degrees: "Machine engineering in the Faculty of Engineering and Pedagogy - Sliven at the Technical University of Sofia and master's degree "Industrial management", specialty "design engineering" at the University "Prof. Dr. Asen Zlatarov" – Bourgas.

PhD Eng. Polina Milusheva-Mandadjieva defended her dissertation for the educational and scientific degree of "Philosophy Doctor" at the Technical University – Sofia, higher education field 5 „*Technical sciences*“, professional specialty 5.1 „*Machine engineering*“, scientific specialty „*Materials science and technology of machine building materials*“.

The applicant has been working in the Department of "Electronics, electrical engineering and machine engineering" at the University "Prof. Dr. Asen Zlatarov" – Bourgas since 1993, consecutively as Technical Assistant (1993-2016), lecturer-assistant (2011-2015) and Senior assistant (since 2016).

2. General description of the presented materials

The research activities and contributions of candidate are entirely in the field of the competition and fully meets the national minimal requirements as well as those of University "Prof. Dr. Asen Zlatarov" – Bourgas for the academic position of "Associate Professor".

Indicator „A“. She defended his dissertation work in Faculty of Engineering and Pedagogy - Sliven at the Technical University of Sofia.

According to the presented Declaration for the number of points by indicators, the applicant participates in the competition with a total of 40 publications arranged into two groups: *indicator „V“* (10 pieces) and *indicator „G“* (30 pieces).

In indicator „V“, a total of 10 publications were submitted. They were published in journals referenced and indexed in world-known scientific databases. She is the only author of seven of them and three were written in collaboration with other authors.

In indicator „G“, scientific publications in non-referenced journals with scientific reviewing or in redacted collective volumes, the applicant participates with 30 publications. The candidate has submitted documents for joint publications signed by her collaborators who declare the contribution of each author to the results in the publications.

In indicator „D“ are presented 32 observed citations.

Indicator „E“. The applicant has presented documents for teaching at the University “Prof. Dr. Assen Zlatarov” from the last 3 years, which undoubtedly prove her rich teaching experience. The senior assistant PhD Eng. Polina Ilieva Milusheva-Mandadjieva teaching activity comprises conducting lectures and seminars for students in degree "Professional Bachelor", "Bachelor" and "Master" mainly in professional fields: 5.2. Electrical engineering, electronics, automation, 5.3. Computer systems and technology and 5.5. Transport, shipping and aviation. Senior assistant PhD Eng. Polina Milusheva gives lectures and seminars on Mechanics, Technical mechanics, Mechanics I, Materials resistance, Computer modeling, Printing and preprinting preparation

The Senior assistant has published 1 textbook “*Technical Mechanics*” as single author, electronic issue (2020, CD, ISBN 978-619-91493-0-0) and 1 handbook “*Collection of Problems in Technical mechanics*”, electronic issue (CD, ISBN 978-619-91493-1-7).

My assessment of the candidate's pedagogical preparation and activity is high.

5. Main scientific and applied science contributions

The main scientific and scientific-applied contributions of Senior Assistant Professor Eng. Polina Ilieva Milusheva-Mandadzheva, PhD are in the field of mechanics and materials science and they can be summarized in the following directions:

- ❖ Deposition of metal, graphene and wear resistant coatings onto polymeric materials;
- ❖ Studies on the mechanical characteristics of deposited coatings and surface properties of thin layers;
- ❖ Simulation studies and optimization of mechanical constructions with deposited coatings;
- ❖ Other directions.

The scientific and applied science contributions in each of these directions are described in detail.

4. Significance of the contributions to science and practice

From the materials submitted for participation in the competition, it can be seen that the personal contribution of the candidate is important for the theory and practice of research and optimization of coatings on materials.

Polina Milusheva's personal contribution to the educational activity is also significant and successful.

5. Critical notes and recommendations

I have no critical notes on the essence.

I recommend that the applicant publish their research in peer-reviewed journals in order to promote the results achieved more widely among international scientific circles.

6. Personal impression and opinion of the reviewer for the candidate

I know Senior assistant PhD Eng. P. Milusheva-Mandadjieva personally and I have close observation of her qualities. My overall impression of the candidate in the "Associate Professor" competition is definitely positive because she is a thorough and precise scientific researcher and lecturer with proven capabilities.

She is well organized, precise and a positive social person, she has many skills, including successful work in a team. All these create good preconditions for her future work.

CONCLUSION

In my opinion, the candidacy of Senior assistant PhD Eng. P. Milusheva-Mandadjieva is suitable for the academic position of "Associate professor". The evidence presented (publications, citations, etc.) comply with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for acquiring scientific degrees and occupying academic positions in the University "Prof. Dr. Asen Zlartarov" – Bourgas

This gives me a well-grounded reason to propose to the Honorable Members of the Scientific Jury that they vote for awarding the academic position of ***"ASSOCIATE PROFESSOR" to Senior assistant PhD Eng. Polina Ilieva Milusheva-Mandadjieva in the scientific specialty Applied mechanics (Mechanics of coatings) in professional specialty 5.1. Machine engineering.***

Burgas, 24.08.2020 г.

Gave an opinion:

/Associate Professor Yovka D. Nikolova /