

STANDPOINT

on the competition for the acquirement of the academic position of PROFESSOR in the field of higher education, 5. Technical sciences, professional field 5.1. Machine engineering, scientific specialty „02.01.25 – Machines and equipment for chemical, oil, gas and oil refining industries”, announced in Sate gazette issue 45/17.06.2022
with one candidate Assoc. prof. PhD Eng Dimitar Rusev Rusev

Member of the scientific jury: Assoc. Prof. Dr. Eng. Yovka D. Nikolova, appointed by Order No. Rd-293/19.09.2022 of the Rector of the University "Prof. Dr. Asen Zlatarov" - Burgas.

1. General information and biographic data

Assoc. Dr. Dimitar Rusev is the only candidate in the announced competition for the academic position of "professor", in area 5. Technical sciences, professional direction 5.1. Mechanical Engineering, specialty "Machines and equipment for the chemical, oil, gas and oil refining industries", announced by the University "Prof. Dr. Asen Zlatarov" - Burgas for the needs of the Department of "Electronics, Electrical Engineering and Mechanical Science" - Faculty of Technical Sciences.

Assoc. Dr. Dimitar Rusev graduated in 1985 as a master engineer-designer at the Moscow Institute of Chemical Engineering, majoring in "Design of Machines and Apparatus for the Chemical Industry", Moscow, Russia. He is a full-time doctoral student at the University "Prof. Dr. Asen Zlatarov", Department of "Processes and Devices" since 1986. until 1990 He defended a dissertation before a specialized scientific council of the VAK for obtaining a scientific degree "candidate of technical sciences" (now the educational and scientific degree "doctor"), in the field of higher education 5. "Technical sciences", professional direction 5.1. "Mechanical engineering, scientific specialty "02.01.25. Machines and equipment for the chemical, oil, gas and oil refining industries".

The candidate has worked in the Department of "Electronics, Electrical Engineering and Mechanical Science" at the University "Prof. Dr. Asen Zlatarov" - Burgas since 1995 until now, successively as "main assistant" and "associate professor" in the same department. During this period (from 2008 until 2012 and from 2020 until now) is the Director of the Technical College at "Prof. Dr. Asen Zlatarov" University.

The presented autobiographical data show that the candidate has achieved successful academic development, as evidenced by his research and teaching activities.

2. General description of the presented materials

The scientific research activity of the candidate is entirely in the field of the competition and meets the national minimum requirements, as well as those of the University "Prof. Dr. Asen Zlatarov" to occupy the academic position of "associate professor".

Group A. He defended a dissertation before a specialized scientific council of the VAK, thus meeting the requirements.

According to the presented Declaration on the number of points by indicators, the candidate participated in the competition with a total of 60 publications, arranged in two groups: **indicator "B"** (10 items) and **indicator "G*"** (56 items).

Group B presents 10 scientific publications in publications that are referenced and indexed in world-renowned databases. One of them is the sole author, and nine were written in collaboration with other authors.

The total number of points in group B-4 is 217, which exceeds the minimum number of points 200 of the requirements of the University "Prof. Dr. Asen Zlatarov".

In group G – in this group, scientific works are presented according to three indicators:

In indicator G5 (30 points) a monograph is presented, which was not used as the main habilitation work;

In indicator G7 (190 points) - scientific publications in publications that are referenced in indexed in world-famous databases with scientific information, the candidate participates with 6 publications, of which he is the sole author in four of them and two were written in collaboration with others authors.

In indicator G8 (389.09 points) - scientific publications in non-refereed journals with scientific review or in edited collective volumes, the candidate participated with 50 publications, 29 of which were published in collections of conference reports, 4 of which were in abroad.

The applicant has submitted documents for the joint publications, signed by his co-authors, which declare the contribution of each author to the results in the publications.

The total number of points in group D is 609.09, which exceeds the minimum number of points 500 of the requirements of the University "Prof. Dr. Asen Zlatarov".

In group D presents 65 noticed citations.

The total number of points in group D is 602, which exceeds the minimum number of points 200 of the requirements of the University "Prof. Dr. Asen Zlatarov".

Group E in this group, documents are presented according to five indicators:

In indicator E14 (60 points), the candidate presented a certificate that he was the supervisor of three successfully defended doctoral students;

In indicator E18 (70 points) - participation in a national scientific or educational project, the candidate indicated participation in 7 projects;

In indicator E23 (60 points) - published university textbook, the candidate has presented in 2 textbooks;

In indicator E25 (40 points) - published application for a patent or utility model, the applicant has presented in 2 published applications;

In indicator E25 (120 points) - a recognized application for a utility model, patent or author's certificate, the applicant has submitted 3 invention patents.

The total number of points in group E is 350, which exceeds the minimum number of points 200 of the requirements of the University "Prof. Dr. Asen Zlatarov".

The analysis shows that the total number of points (1828) of the candidate for the academic position "Professor" Assoc. Dr. Dimitar Rusev covers and significantly exceeds the requirements of the University "Prof. Dr. Asen Zlatarov" (1150).

3. Evaluation of the teaching activity

The candidate has presented a certificate of teaching activity at the University "Prof. Dr. Asen Zlatarov" for the past 3 years, which undoubtedly proves his rich teaching experience. The teaching activity of Assoc. Dr. Dimitar Rusev consists in leading lectures and practical exercises for students in OKS "professional bachelor", "bachelor" and "master", mainly in professional fields 5.2. Electrical engineering, electronics, automation, 5.3. Computer systems and technologies, 5.5. Transport, shipping and aviation and 5.10 Chemical technology. Assoc. Dr. Dimitar Rusev leads lectures and seminars on Engineering graphics, Technical documentation, Machines and devices in the chemical industry, Applied software, Pressure tanks and vessels, Applied CAD systems in electrical engineering, etc.

Assoc. Dr. Dimitar Rusev has published as an independent author 1 textbook "Machines and apparatus in the chemical industry", electronic edition (2021, ISBN 978-619-91760-0-9) and 1 co-authored textbook "Technical documentation", (2013, ISBN 978-954-8422-91-8). He was a reviewer of 2 teaching aids. He participated in the development of a significant number of study programs, mainly for the needs of the specialties of the Faculty of Technical Sciences, in all educational and qualification levels.

My assessment of the candidate's pedagogical training and activities is high.

4. Basic scientific and scientific-applied contributions

The main scientific and scientific-applied contributions of Associate Professor Dr. Dimitar Rusev are in the field of machine and apparatus construction, hydrodynamics, simulation studies, application of surface coatings, energy efficiency and management, organization and optimization of educational processes, etc. They can be summarized in the following directions:

- Development of machine and apparatus designs and improvement of energy efficiency and turbine designs for ORC-installations;
- Hydromechanics studies and optimization of mechanical constructions
- Deposition and study of the mechanical characteristics of surface coatings deposited onto metal and polymer substrates;
- Simulation studies and optimization of mechanical constructions and tensile properties of deposited coatings;
- Synthesis of new materials;
- Management, organization and optimization of the educational process.

For each of these directions, the scientific and scientific-applied contributions are described in detail.

5. Significance of contributions to science and practice

From the submitted materials and documents for the competition, it can be seen that the candidate's personal contribution is significant for theory and practice in proving new means and aspects of already existing areas and problems, by conducting scientifically based research. His contribution to the development of machine and apparatus structures and improvement of the energy efficiency of ORC-installations, hydro-mechanical research and optimization of mechanical structures, application and study of the mechanical characteristics of surface coatings applied to metal and polymer materials, simulation studies is significant. and optimization of mechanical structures and strength characteristics of applied coatings and synthesis of new materials.

The personal contribution of Associate Professor Dr. Dimitar Rusev in the educational activity is also serious and successful.

6. Critical remarks and recommendations

I have no substantive criticisms. I recommend the candidate to publish his scientific research in refereed journals abroad to achieve wider popularization of the achieved results among the international scientific circles.

7. The reviewer's personal impressions and opinion about the candidate

I know Associate Professor Dr. Dimitar Rusev and have personal impressions of his qualities. My impressions of the candidate in the "Professor" competition are decidedly positive because he is a thorough and precise scholar and educator with proven capabilities.

He is a very organized, punctual and positively social person, possessing many skills, including working successfully in a team. All this creates good conditions for his future work.

CONCLUSION

Based on the presented documents, I believe that in terms of volume and quality, the applicant's research and applied scientific activities satisfy the requirements of the fully complies with the minimum national scientometric requirements and the requirements according to the Regulations of the terms and conditions for acquiring of scientific degrees and holding academic positions in the University "Prof. Dr. Asen Zlatarov" – Burgas, for his acquirement of the academic position of "Professor".

This gives me the reason to propose to the Honorable members of the Scientific Jury to vote for awarding **Associate Professor Dr. Dimitar Rusev** the academic position of **"Professor" in the scientific specialty Machines and Equipment for the Chemical, Oil, Gas and Oil Refining Industry in professional direction 5.1. Mechanical Engineering.**

Member of the scientific jury: ..

/ Assoc. Prof. Dr. Eng. Yovka D. Nikolova /

Burgas, 07.11.2022 г.