## **OPINION**

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## from prof. DS.c. Eng. Stanislava Tsankova Tasheva

Member of the scientific jury for the competition for academic position "professor", scientific field 5. Technical sciences, professional field 5.13. General engineering, science specialty 02.10.23. "Technology of natural and synthetic fuels", announced in the State Gazette, issue 42/12.05.2023 for the needs of the University "Prof. PhD Asen Zlatarov" – Burgas

## Candidate: Associate Professor Ph.D. Eng. Dobromir Ivanov Yordanov

The only candidate in the competition is Associate Professor Ph.D. Eng. Dobromir Ivanov Yordanov. He requires of the minimum national requirements for scientific and teaching activities in scientific fields and professional direction for occupying the academic position of "Professor", according to the indicators of Art. 2b, para.2 of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the requirements under Art.73, para. 1 of the Regulations for the terms and conditions for acquiring scientific degrees and holding academic position at the University "Prof. Ph.D. Asen Zlatarov" – Burgas.

Associate Professor PhD Eng. Dobromir Yordanov graduated from University "Prof. Ph.D. Asen Zlatarov" in 1997 as a master's degree in "Chemical Technologies". Since 2004 he has acquired the educational and scientific degree "Doctor" in scientific specialty: "Technology of natural and synthetic fuels".

Professionally, Associate Professor Ph.D. Eng. Dobromir Yordanov has successively held the following academic positions:

- Assistant from 2002 to 2004;
- Main Assistant from 2004 to 2011;
- Associate Professor from 2011 up to now.

Since 2020, he is Deputy Dean of the Faculty of Social Science and Head of Department: "Industrial Technologies and Management".

His teaching experience is 21 years, as a leading lecturer on courses related to oil and gas technology and alternative energy sources, quality control and management in organizations.

He is supervisor of 40 graduate students and 4 PhD students in the doctoral program "Technology of natural and synthetic fuels". He participates in two scientific juries in competitions: for "Associate Professor" – at University "Prof. Ph.D. Asen Zlatarov"-Burgas and "Main Assistant" – at HMTU-Sofia.

He is an expert at the Executive Agency for "Bulgarian Accreditation Service" and took part in the preparation of 3 self-assessment reports, two of which in professional field 5.13. General Engineering and one in professional field 5.10. Chemical Technologies.

Assoc. Prof. D. Yordanov is a member of the management board of the "Bulgarian Institute of Standartization" for the period from 2020 to 2021 and member of TC 67 "Petrol products and lubricants", too.

He participates in the composition of the Faculty Council at the Faculty of Social Sciences and the Academic Council at University of "Prof. Ph.D. Asen Zlatarov", he is the chairman of the quality committee and the teaching-methodical council at the Faculty of Social Sciences since 2020.

He is registered mediator in the unified register of mediators in Bulgaria at the Ministry of Justice.

Assoc. Prof. Dobromir Yordanov is an auditor of management systems according to ISO 19011 since 2021.

He completed training on skills for development, implementation and management of digital educational content at University of "Prof. Ph.D. Asen Zlatarov"- Burgas in 2022.

He also received entrepreneurship training organized by Enter time Germany in 2021.

There are presented documents for teaching activities at the University "Prof. Ph.D. Asen Zlatarov" after receiving the academic position "Associate Professor" until now, which prove the rich teaching experience of Assoc. Prof. Dobromir Yordanov, PhD. The documents present 15 study programs developed and updated in professional direction 5.13. General engineering and 5.10. Chemical technologies for EQD "Bachelor" and EQD "Master", of which only one is co-author in the following disciplines: "Engineering solution", "Engineer-technological calculations in organic chemical technologies", Quality control and management in the oil and gas industry", "Quality control and management", Determination of excise goods", "Project on technology of natural energy carries", "Refinery design", "Resource, ecological and energy efficiency of industrial technologies", "Properties and application of oil, gas and petroleum products", "Technologies of control of oil and gas pipelines", "Quality management of oil and gas industry" and "Chemmotology". Associate professor PhD. Eng. Dobromir Yordanov has published a textbook on "Quality Management", one of the disciplines taught by him for the EQD "Bachelor's" and EQD "Master's".

In the competition for academic position "Professor", Associate Professor PhD. Eng. Dobromir Yordanov participated in the co-authorship of a monograph published in 2022 and with a list of 86 publications. The presented publications are: 10 publications under indicator B4, 54 publications under indicator G7 and 22 publications under indicator G8, of which 1-independent and 85 co-authored. By types they are as follows:

- Articles in SCOPUS and Web of Science 64;
- Articles in Bulgarian and foreign peer-reviewed scientific publications -22;

The structure of scientific works publications gives grounds for following conclusions:

- The scientific works presented in the competition fulfill the requirements of the law;
- The works presented are dedicated to problems in the field of the competition;
- These is a high publication activity, most publications are co-authored, which speaks of good teamwork of the candidate.

I find the scientific works (articles and reports) with which the candidate participated in the competition for "Professor" to be well-founded, reasoned and confirmed – 86 publications, and the main contributions of a scientific and scientific-applied nature are the following:

- A choice of suitable raw material LNB processing was made, which the effect of reducing the costs of selecting a suitable raw material.

- Increased conversion of direct distillate tar by 2% when processing with recycle from non-condensed vacuum residue to direct distillate tar feedstock.
- Increased tar conversion by 3% by feeding catalytic cracking sludge to directly distilled tar.
- Statistical methods were used to determine the duration and quality of diesel fuel storage without affecting its qualities.
- The process of using waste products (coffee grounds) in order to obtain second and third generation biodiesel and bioethanol was studies.
- The possibility of using coffee grounds and waste glycerol from biodiesel production as solid biofuel in pellet combustion plants was investigated.
- Equations describing the calculation procedure for calibration and recalibration interval are derived.
- A modified method for calculating the extended uncertainty from testing by various standardized methods was developed and applied, allowing to establish the cause of the deviations above the applicable normative documents.
- A procedure was developed and implemented to estimate the uncertainty budget from the tests, as a result of which it is determined that a single measurement is necessary for the given indicator.

I evaluate the applicant's contributions positively and as corresponding to the requirements of the normative documents on the point.

A list with a total of 50 citations is presented, from which it is evident that candidate's scientific results are discovered and cited by authors working in similar research areas. The observed 50 citations of scientific publications are in international databases SCOPUS and Web of Science. Therefore, it can be considered that the publications of Associate Professor PhD Eng. Dobromir Yordanov have received the necessary fame and recognition from the scientific community at home and abroad.

The candidate also presented a list of 22 contracts and won competition projects with his participation (10 at the University "Prof. Ph.D. Asen Zlatarov" – Burgas, in which he was the head of 3 projects and took part in the team of another 7 projects, 11 more national projects were presented, of which he has the head of 3 projects and took part in the team of 8 more projects). Associate Professor Ph.D. Eng. Dobromir Yordanov participated in the "Student Practices" project – phase I and II, as an academic mentor.

The candidate has submitted a report on the fulfilment of the minimum requirements under the Regulations for the University's UPPNSZAD, from which it is clear that he meets the state requirements under the RAS of the Republic of Bulgaria and the Regulations of the University for all groups of indicators.

My impressions of the candidate in the "Professor" contest are definitely positive because Associate Professor Dobromir Yordanov is a precise and thorough scientific researcher, a competent and responsible organizer and teacher with proven capabilities. He has the skill to work in a team, to create a creative environment for transferring the accumulated experience and knowledge. All this creates good condition for his work.

Based on the presented facts, I believe that the volume and quality of the candidate's scientific research and applied scientific activity satisfy the requirements of the RSASR and PPZRASRB. The quantitative indicators of the Regulations of the University "Prof. PhD Asen Zlatarov" – Burgas to occupy the academic position "Professor".

This gives me reasons confidently propose to the Honorable members of the Scientific Jury to vote unanimously to award Associate Professor PhD Eng. Dobromir Yordanov to the academic position "Professor" in scientific specialty: 02.10.23." Technology of natural and synthetic fuels", in professional direction 5.13. General engineering".

05.09.2023 Plovdiv city

(110). Due Dieg. Diminomara Lusinara)