

OPINION

on a competition for the academic position of **Associate Professor**
in Professional Field **5.8 Exploration, extraction and processing of mineral resources**,
Scientific Specialty “**Open pit and underwater mining of mineral resources**”

for the needs of the University of Mining and Geology “St. Ivan Rilski”, Sofia,
Faculty of Mining Technology, Department of development of mineral resources,

Announced in the State Gazette, issue No. 36 of 17 April 2026

The opinion has been prepared by: **Prof. PhD Eng. Evgenia Ivanova Aleksandrova**, member of the
Scientific Jury for the competition, appointed by Order No. ПД-13-22 / 18.05.2026 of the Rector of the
University of Mining and Geology “St. Ivan Rilski”.

One candidate has submitted documents for participation in the announced competition:

Ch. Assist. PhD Eng. Martin Ivanov Pushkarov

I. General description of the submitted materials

1. Candidate information

The documents submitted by the candidate **Ch. Assist. PhD Martin Ivanov Pushkarov** for participation in the competition comply with the requirements of the **Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB)**, the Regulations for its implementation, and the Regulations on the conditions and procedure for acquiring academic degrees and holding academic positions at the University of Mining and Geology “St. Ivan Rilski”.

For participation in the competition, Dr. Pushkarov has submitted **one monograph, 21 scientific publications in peer-reviewed indexed journals, and 7 scientific publications in non-indexed peer-reviewed journals and edited collective volumes**. The required set of documents has been provided, including abstracts and full texts of publications, curriculum vitae, official certificates and other documents, which demonstrate both compliance with the minimum national requirements for holding the academic position of **Associate Professor**, as well as quality and consistency in academic activities, commitment to professional development, and engagement with practical applications.

2. General characteristics of the candidate’s scientific works and achievements

The scientific activity of Ch. Assist. PhD Martin Pushkarov is focused on current issues in the fields of mining, hydraulic systems, energy efficiency, and sustainable management of natural resources. The scientific works submitted for the competition are consistent with the subject area of the competition for the academic position of **Associate Professor** in the scientific specialty “**Open-Pit and Underwater Mining of Mineral Resources**”, addressing issues related to technological processes in open-pit mining, mine water management, mining safety, and reduction of environmental impacts.

The monograph entitled “**Numerical Modeling and Experimental Analysis of Pollution in Mine Waters Resulting from Mining Activities**” represents an in-depth study of a significant engineering and environmental problem. The developed approach, combining numerical modelling and experimental investigations, contributes to the analysis and management of processes related to the formation, movement, and transformation of pollutants in mine waters, with direct relevance to safety and sustainable development of the mining industry.

In his other publications, Ch. Assist. PhD Pushkarov develops research in the fields of hydraulic systems, energy efficiency, diagnostics of technical equipment, and optimization of

technological processes. These studies contribute to improving the reliability, productivity, and safety of mining equipment and production systems.

The scientific works submitted, including publications in international peer-reviewed and indexed journals, demonstrate the consistent development of the candidate's research interests and his ability to conduct studies of scientific and practical significance. I consider that the presented achievements meet the minimum national requirements under Article 2b, paragraphs 2 and 3 of the **Law on the Development of Academic Staff in the Republic of Bulgaria** for holding the academic position of **Associate Professor**.

Throughout his scientific activity, Ch. Assist. PhD Martin Pushkarov demonstrates in-depth knowledge, engineering competence, and consistency in developing research tasks related to modern approaches in mining production, environmental protection, and improvement of technological systems in open-pit and underwater mining of mineral resources.

3. Characteristics and evaluation of the candidate's teaching activity

In his academic teaching activity, Ch. Assist. PhD Martin Pushkarov demonstrates a high level of professional competence and a commitment to practice-oriented education, aligned with the contemporary requirements of the mining industry. The experience gained at the University of Mining and Geology "St. Ivan Rilski" and the Technical University of Sofia provides a solid foundation for his development as a university lecturer.

During the period 2024–2026, the candidate actively participated in the educational process of the Department of Mineral Resources Development, delivering lectures and practical classes in core disciplines related to open-pit mining, including **"Open-Pit Mining of Mineral Resources"**, **"Mining Technologies"**, **"Mining Software"**, **"Good Mining Practices"**, and others. His teaching activities cover both bachelor's and master's degree programs in full-time and part-time forms of education.

The candidate's teaching activity is closely related to the subject area of the competition and contributes to the education of engineering specialists through training focused on modern technologies, digital tools, technical reclamation, and sustainable management of mining activities. His scientific and teaching work successfully complement each other and meet the requirements for holding the academic position of **Associate Professor** in the scientific specialty **"Open-Pit and Underwater Mining of Mineral Resources"**.

4. Scientometric indicators

Ch. Assist. PhD Martin Ivanov Pushkarov fulfills and exceeds the minimum national requirements for holding the academic position of **Associate Professor** in accordance with the **Law on the Development of Academic Staff in the Republic of Bulgaria** and the Regulations for its implementation.

With a required minimum of **400 points**, the candidate has presented scientific achievements amounting to **463.68 points**, thereby fully satisfying the regulatory requirements for participation in the competition and for holding the academic position of **Associate Professor**.

5. Other contributions

A significant part of the professional development of Ch. Assist. PhD Martin Pushkarov is related to his participation in national, international, and university research projects in the fields of mining, hydraulic systems, environmental protection, and modern engineering technologies. The candidate has experience both as a member of research teams and as a project leader.

Of particular importance for the scientific specialty **"Open-Pit and Underwater Mining of Mineral Resources"** are the developments related to intelligent systems for material flow management, mine water investigations, hydraulic components, and improving safety in mining operations. His project activities contribute to the development of innovative engineering solutions and the practical implementation of scientific results in mining production.

6. Critical remarks and recommendations

The scientific works and applied research developments presented by Ch. Assist. PhD Martin Pushkarov are characterized by relevance, engineering orientation, and a strong connection with practical problems in mining production.

As an opportunity for further development, it may be recommended to expand the application of the developed numerical models through validation with a larger volume of experimental data and real industrial case studies. These recommendations do not diminish the significance of the achieved results but rather outline directions for their further development and enhancement.

7. Personal impressions of the candidate

I know Ch. Assist. PhD Martin Pushkarov as a competent, responsible, and motivated lecturer and researcher. In his professional activities, he demonstrates consistency, strong commitment to scientific and teaching work, and the ability to cooperate effectively in an academic environment.

My impressions are that he approaches assigned tasks with the necessary responsibility, actively contributes to the development of the department, and demonstrates a continuous aspiration for professional improvement and for the implementation of modern engineering approaches in his scientific and educational activities.

8. Conclusion on the candidate's application

After reviewing the materials submitted for the competition and carrying out a comprehensive evaluation of the candidate's scientific, applied research, teaching, and project activities, I consider that **Ch. Assist. PhD Martin Ivanov Pushkarov** meets the requirements of the **Law on the Development of Academic Staff in the Republic of Bulgaria**, the Regulations for its implementation, and the Regulations on the conditions and procedure for acquiring academic degrees and holding academic positions at the University of Mining and Geology "St. Ivan Rilski" for occupying the academic position of **Associate Professor** in Professional Field **5.8 Exploration, Extraction and Processing of Mineral Resources**, Scientific Specialty "**Open-Pit and Underwater Mining of Mineral Resources**".

The scientific works presented contain original scientific and applied research contributions. The minimum national requirements for holding the academic position have been fulfilled, and no violations related to academic ethics have been identified.

I give my **positive assessment** of the candidate's application.

II. GENERAL CONCLUSION

Based on the set of documents and materials submitted for the competition, after analyzing their scientific significance and the contributions contained therein, which have received recognition in the scientific literature, and taking into consideration the candidate's overall academic and professional activity, I confidently give my **positive assessment** and recommend that the esteemed Scientific Jury select **Ch. Assist. PhD Martin Ivanov Pushkarov** for the academic position of **Associate Professor** in Professional Field **5.8 "Exploration, Extraction and Processing of Mineral Resources"**, Scientific Specialty "**Open-Pit and Underwater Mining of Mineral Resources**".

03 August 2026
Sofia

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