

OPINION

From: Assoc. Prof. Valentin Todorov Chochev, PhD, Eng.
Associate Professor at the Academy of the Ministry of Interior

REGARDING: Competition for the academic position of "Associate Professor"

Field of Higher Education: 5. "Technical Sciences"

Professional Field: 5.7. "Architecture, Civil Engineering and Geodesy"

Academic Disciplines: "Hydraulics and Water Supply for Firefighting" and "Design of Fire Extinguishing Systems" at the Department of Tactics, Faculty of Fire Safety and Civil Protection, Academy of the Ministry of Interior

1. Information about the competition

The competition was announced by the Academy of the Ministry of Interior in the State Gazette, Issue No. 42 dated May 8, 2026, for the requirements of the Department of Tactics at the Faculty of Fire Safety and Civil Protection of the Academy of the Ministry of Interior.

I participate as a member of the Scientific Jury for this competition pursuant to Order Reg. No. 4581z-1721 dated August 10, 2026, issued by the Rector of the Academy of the Ministry of Interior.

2. Brief Information about the candidate in the competition

The sole candidate, Svilena Sevdalinova Arabadzhieva, PhD, Eng., was born on October 16, 1984, in the town of Elena. She holds a Bachelor's degree in "Fire and Emergency Safety" obtained from the Faculty of Fire Safety and Civil Protection at the Academy of the Ministry of Interior, a Master's degree obtained from the Academy of the Ministry of Interior (Diploma Series A2011, Reg. No. 9442/2011), and a Doctor's degree (PhD) (Diploma KN 56921/November 25, 2024) from the Academy of the Ministry of Interior, under the doctoral program "Occupational Safety and Firefighting Equipment".

She was appointed to the system of the Ministry of Interior by virtue of Order Reg. No. K-6583/October 29, 2007, to the position of Instructor VI Grade in the "State Fire Control and Preventive Activity" group of the First Regional Directorate for Fire Safety and Civil Protection (RSPBZN) – Ruse. In the period between 2007 and 2011, she held the positions of Instructor VI-IV Grade at the Regional Directorates for Fire Safety and Civil Protection (RDPBZN) in Ruse and Veliko Tarnovo.

Following a successful competition, by virtue of Order Reg. No. z-219/February 15, 2012, effective from March 5, 2012, she was appointed to the academic position of "Assistant Professor" at the Department of Firefighting Equipment and Emergency Rescue Operations (PPT and ASD), Faculty of Fire Safety and Civil Protection, Academy of the Ministry of Interior.

By virtue of Order Reg. No. 4581z-801/June 28, 2021, she was reassigned to the academic position of "Senior Lecturer" at the Department of Tactics, Faculty of Fire Safety and Civil Protection, Academy of the Ministry of Interior, a position she currently holds.

3. Compliance with the requirements for occupying the academic position

For participation in the competition, Svilen Arabadzhieva, PhD, Eng., has submitted a published monographic work and other scientific publications that do not duplicate the scientific publications presented for the defense of her doctoral dissertation. Possessing a PhD degree and having accumulated over two years of experience in the academic positions of Assistant Professor/Senior Lecturer, the candidate meets the preliminary conditions stipulated in the Act on Development of the Academic Staff in the Republic of Bulgaria (ADASRB) and the Regulations for the Implementation of the ADASRB required to commence the evaluation of the minimum national requirements for occupying the academic position of "Associate Professor" in the respective professional field.

As evidenced by the submitted Compliance Reference Sheet for the minimum national requirements for the academic position of "Associate Professor" in Field of Higher Education 5. "Technical Sciences", Professional Field 5.7. "Architecture, Civil Engineering and Geodesy", published after obtaining her PhD, Svilen Arabadzhieva, PhD, Eng., participates in the competition with 1 monograph and 23 publications.

The fulfillment of the scientometric indicators according to the minimum national requirements described in Art. 2b, Para. 2 of the ADASRB and the Annex to Art. 1a, Para. 1 of the Regulations for the Implementation of the ADASRB is as follows:

- **Indicator Group A – 50 points (50 points required)**

Indicator 1: Dissertation thesis for the award of the educational and scientific degree "Doctor" (PhD) – Diploma KN 56921/November 25, 2024, issued by the Academy of the Ministry of Interior under the doctoral program "Occupational Safety and Firefighting Equipment" has been submitted.

- **Indicator Group B – 100 points (100 points required)**

Indicator 3: Habilitation thesis – a standalone monograph titled "Water Supply for Internal Firefighting: Internal Fire Hydrants", published by the Academy of the Ministry of Interior, Sofia, ISBN 978-954-348-267-2, has been submitted.

- **Indicator Group G – 303.35 points (200 points required)**

Indicator 7: Scientific publications in editions that are refereed and indexed in world-renowned databases of scientific information – 2 co-authored publications, wherein the candidate is the primary author in 1 of them (Publication No. G-7-1) and the second author in 1 of them (Publication No. G-7-2).

Indicator 8: Scientific publications in non-refereed peer-reviewed journals or edited collective volumes – 23 publications, of which 5 are standalone (Publications No. G-8-2, G-8-4, G-8-6, G-8-12, and G-8-18) and 18 are co-authored. The candidate is the primary author in 9 of them (Publications No. G-8-1, G-8-3, G-8-5, G-8-10, G-8-13, G-8-15, G-8-16, G-8-17, and G-8-20), second author in 7 of them (Publications No. G-8-7, G-8-8, G-8-9, G-8-11, G-8-14, G-8-19, and G-8-21), and third author in 2 of them

(Publications No. G-8-22 and G-8-23). No separation protocols regarding the individual contribution to the co-authored publications were submitted; therefore, pursuant to Note 6 of the Annex to Art. 1a, Para. 1 of the Regulations for the Implementation of the ADASRB, the publication score is divided equally among the authors.

- **Indicator Group D – 99 points (50 points required)**

Indicator 12: Citations in scientific publications refereed and indexed in world-renowned databases of scientific information – 5 citations of two publications are presented (Score for Indicator 12: 50 points).

Indicator 13: Citations in monographs and peer-reviewed collective volumes – 13 citations of 9 scientific works of the candidate are presented (Score for Indicator 13: 39 points).

Indicator 14: Citations in non-refereed peer-reviewed editions – 5 citations of 4 scientific works are presented (Score for Indicator 14: 10 points).

- **Indicator Group E – 10 points (0 points required)**

Indicator 18: Participation in a national scientific or educational project – Administrative Agreement Reg. No. KP-06-M67/8 dated December 15, 2022, for project funding has been submitted, won under the competition "Funding of Fundamental Research of Young Scientists and Postdoctoral Students - 2022" conducted by the Bulgarian National Science Fund. Svilena Arabadzhieva, PhD, Eng., participated as a member of the scientific research team.

The performed evaluation indicates that the minimum national requirements across the indicator groups for occupying the academic position of "Associate Professor" in Field of Higher Education 5. "Technical Sciences", Professional Field 5.7. "Architecture, Civil Engineering and Geodesy", pursuant to the requirements of the Annex to Art. 1a, Para. 1 of the Regulations for the Implementation of the ADASRB, have been fully met.

The total score is 562.35 points against the minimum requirement of 400 points.

4. Evaluation of teaching and pedagogical activity

Following a successful competition, by virtue of Order Reg. No. z-219/February 15, 2012, effective from March 5, 2012, Svilena Arabadzhieva, PhD, Eng., was appointed to the academic position of "Assistant Professor" at the Department of PPT and ASD, Faculty of Fire Safety and Civil Protection, Academy of the Ministry of Interior. By virtue of Order Reg. No. 4581z-801/June 28, 2021, she was reassigned to the academic position of "Senior Lecturer" at the Department of Tactics, Faculty of Fire Safety and Civil Protection, Academy of the Ministry of Interior, which she holds to date.

At the Faculty of Fire Safety and Civil Protection, until 2019, Dr. Arabadzhieva primarily conducted practical seminars in the disciplines of "Practical Training (Operational Duty)", "Hydraulics and Fire Water Supply", and "Rescue Operations". Since then and up to the present moment, she has been entirely teaching the courses "Hydraulics and Water Supply for Firefighting" and "Logistics".

Based on the foregoing, I consider that Svilena Arabadzhieva, PhD, Eng., possesses the necessary teaching experience required to occupy the academic position of "Associate Professor".

5. Brief characterization of the submitted scientific works/publications

As noted in Section 3 of this statement, I accept that 1 monograph and 23 publications are relevant to the subject matter of the competition.

The monograph "Water Supply for Internal Firefighting: Internal Fire Hydrants" was developed in accordance with the syllabi of the course "Hydraulics and Water Supply for Firefighting" and is the result of long-term experimental activity and research into the issues of this type of water supply. The monograph comprises 120 pages and is structured into an introduction, 4 chapters, main conclusions, and recommendations.

The monograph investigates internal fire water supply via internal fire hydrants as an integrated technical, regulatory, operational, and organizational system. The main objective is to develop a scientific and applied framework for evaluating and enhancing the reliability of internal fire hydrants by linking the building's design coverage, product compliance, hydraulic characteristics, proper installation, technical maintenance, signage, user preparation, and operational utilization by firefighting crews. To achieve this goal, historical-regulatory and comparative analysis, hydraulic modeling, experimental measurements, survey studies, and analyses of recorded fire incidents were applied.

Although the monograph is oriented toward research activities, the information can also be utilized by cadets and students enrolled in Bachelor's and Master's degree programs at the Faculty of Fire Safety and Civil Protection, Academy of the Ministry of Interior, as well as by a wide range of specialists, such as engineers and PhD students, in researching and solving tasks related to the design and implementation of internal fire hydrants.

Based on the publications submitted for the competition, the research activity of Svilena Arabadzhieva, PhD, Eng., can be classified into the following main directions:

- Fire safety and passenger protection in railway transport – (works G-8-1, G-8-3, G-8-4, G-8-5, G-8-16, G-8-17, G-8-18, and G-7-2);
- Risk assessment, regulatory control, and safety of specific facilities – (works G-8-2, G-7-1, G-8-6, G-8-9, G-8-10, G-8-11, G-8-15, and G-8-21);
- Fire water supply and means for initial firefighting – (works G-8-12, G-8-20, G-8-22, and G-8-23);
- Innovative training and rescue operations – (works G-8-7, G-8-8, G-8-13, G-8-14, and G-8-19).

I assess the quantity of the publications submitted for evaluation as sufficient for participating in a competition for the academic position of "Associate Professor". I consider that the requirements of Art. 29, Para. 1, Item 3 of the ADASRB have been met, and the monographic work and publications presented by Svilena Arabadzhieva, PhD, Eng., do not duplicate those submitted for the acquisition of the educational and scientific degree "Doctor" (PhD).

6. Synthesized evaluation of the main scientific and applied contributions of the candidate

The candidate's claims of contribution lie primarily in areas proving new aspects of already existing scientific fields, problems, theories, and hypotheses, acquiring new knowledge directed toward a specific goal or object, as well as obtaining confirmatory facts. Therefore, I consider the scientific contributions of the accepted works relevant to the competition field to be of a scientific and applied nature.

I believe that the main part of the contributions in the scientific works of Svilena Arabadzhieva, PhD, Eng., stems from her research activities in the directions formulated in Section 5 of this statement and can be summarized as follows:

1. Mathematical, probabilistic, and numerical models for the analysis, assessment, and management of fire risk have been developed – Works No. 2.6, 2.8, 2.9, 2.10, 2.12, 2.15, 2.18, 2.21, 2.23.
2. Experimental and applied research has been conducted to enhance fire safety in railway transport, fire water supply, and initial firefighting equipment – Works No. 1.1, 2.4, 2.5, 2.13, 2.17, 2.21, 2.22.
3. The human factor, public behavior, and the preparedness of the population and professional teams have been investigated, resulting in the development of methodologies for assessing knowledge and operational readiness, training models, and practical simulators to improve fire safety – Works No. 1.1, 2.1, 2.5, 2.14, 2.16, 2.19, 2.24, 2.25.
4. Scientifically grounded organizational, regulatory, and managerial solutions have been proposed for perfecting fire safety, alongside integrated safety management approaches across various facilities and infrastructures – Works No. 1.1, 2.2, 2.3, 2.7, 2.11, 2.13, 2.20, 2.23.
5. Scientific knowledge regarding the fire safety of specialized and high-risk facilities has been expanded, aimed at increasing prevention, operational readiness, and the efficiency of fire protection – Works No. 1.1, 2.3, 2.4, 2.5, 2.6, 2.7, 2.11, 2.16, 2.20, 2.21, 2.23.

The significance of the candidate's scientific and applied contributions is indisputable. It is confirmed both by the number of identified citations and by their actual application in practice and the educational process. All of this gives me reason to conclude that the candidate is well-recognized and acknowledged within the scientific community.

7. Main critical remarks and recommendations

I have no critical remarks. I recommend that the candidate deepen and expand her research activity, as well as diversify the topics and formats of her scientific publications, primarily in the field of hydraulics and water supply for firefighting.

Conclusion

I find that the candidate and the submitted scientific works meet all the requirements, and the quantitative indicators regulated by the Act on Development of the Academic Staff in the Republic of Bulgaria and the Regulations for its implementation have been strictly observed. My overall assessment of the entire research and scientific activity of eng. Svilena Arabadzhieva, PhD, is **POSITIVE**.

Based on my review of the submitted scientific works, their significance, and the scientific and applied contributions contained therein, I find it fully justified to propose that eng. Svilena Sevdalinova Arabadzhieva, PhD, be appointed to the academic position of "Associate Professor" in Field of Higher Education 5. "Technical Sciences", Professional Field 5.7. "Architecture, Civil Engineering and Geodesy", for the academic disciplines "Hydraulics and Water Supply for Firefighting" and "Design of Fire Extinguishing Systems" at the Department of Tactics, Faculty of Fire Safety and Civil Protection, Academy of the Ministry of Interior.

21.09. 2026

Signature:

Assoc. Prof. Valentin Chochev, PhD, Eng.

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