

OPINION

on the fulfilment of the criteria for appointment to the academic position of “Professor” in Higher Education Area 5. Technical Sciences, Professional Field 5.3 Communication and Computer Engineering, and specialty “Automated Systems for Information Processing and Control”, announced in the Bulgarian State Gazette, Issue 61 of 03.07.2026, with candidate Assoc. Prof. Rosen Stefanov Ivanov, PhD, Eng.

Jury Member: Prof. Todor Dimitrov Ganchev, PhD, Eng.

1. Assessment of the candidate’s research activities

Assoc. Prof. Rosen Stefanov Ivanov, PhD, Eng., is the only candidate in the competition for the academic position of “Professor”, announced for the needs of the Department of Computer Systems and Technologies.

In brief, Assoc. Prof. R. Ivanov participates in the present competition with an excellently organized application package, arranged in 23 pieces and made available online in web format. The scope and organization of the documentation comply with the requirements of the Technical University of Gabrovo and the Bulgarian national requirements for appointment to academic positions in Professional Field 5.3. The quantity and quality of the scientific output, presented in a total of four lists, make an excellent impression. Lists including five university textbooks and one teaching guide have also been provided.

To meet the minimum Bulgarian national requirements under indicator groups “B” and “G” and the institutional requirements of the Technical University of Gabrovo, Assoc. Prof. Ivanov has submitted a total of 35 scientific publications and one monograph published in 2026. These 35 publications considerably exceed the institutional requirement of TU-Gabrovo (30 publications). Of the 35 publications, 24 are authored by the candidate alone (at least 5 are required), while 11 are co-authored. A total of 17 are articles in scientific journals, of which 6 are indexed in Web of Science and have an impact factor (3 publications with impact factor are required). Another 18 are papers published in proceedings of scientific conferences or in the Annual Journal of TU-Gabrovo. Based on my observations over the past 10 years, in terms of the number of studies published in scientific journals and authored alone, Assoc. Prof. R. Ivanov surpasses most candidates for the academic position of “Professor” at Bulgarian higher education institutions. Furthermore, his scientific output substantially exceeds both the minimum national requirements and the institutional requirements of TU-Gabrovo.

More specifically, of the 36 peer-reviewed scientific works submitted for participation in the competition, 12 are presented to satisfy the requirements under indicator “B.4” as publications equivalent to a monographic work. These include 7 publications in scientific journals and 5 papers presented at scientific conferences and indexed in Scopus.

To satisfy the requirements under indicator group “G”, three lists have been submitted under indicators “G.5”, “G.7” and “G.8”. Under indicator “G.5”, the candidate has submitted a book constituting a monographic work, presenting a set of methods and algorithms for localization and navigation in indoor and outdoor environments. I consider the book entitled “Methods and Algorithms for Intelligent Localization and Navigation in Indoor and Outdoor Environments” to

fall entirely within the thematic scope of the present competition. Under indicator “G.7”, Assoc. Prof. Ivanov has submitted a list of 6 scientific publications indexed in the Scopus database, including 3 articles in peer-reviewed scientific journals. Under indicator “G.8”, a total of 17 publications has been submitted, of which 7 are peer-reviewed scientific journals which are not indexed in Scopus or Web of Science, 9 are in proceedings of scientific conferences, and 1 is published in the Annual Journal of TU-Gabrovo.

In accordance with the requirements of the Law for Development of Academic Staff in the Republic of Bulgaria (LDASRB) and its implementing regulations, Assoc. Prof. Ivanov has submitted a list of the publications used for obtaining the educational and scientific degree “Doctor” (a total of 8 publications in the period 1996–2000), as well as a list of 22 scientific publications from the period 1996–2016 and one teaching aid used to satisfy the requirements of the former Higher Attestation Commission for appointment to the academic position of “Associate Professor” and subsequently for registration in the Register of Academic Staff maintained by NACID.

Under indicator group “D”, concerning citations by independent authors, Assoc. Prof. Ivanov has submitted a list under indicator “D.12” containing a total of 127 citations by international authors. This considerably exceeds the required minimum of 20 citations under the minimum requirements of TU-Gabrovo.

According to LDASRB and the provisions of its implementing regulations, reviews prepared by candidates for academic positions do not carry points toward fulfilment of the minimum national requirements under indicator group “D”. The points mentioned in the definitions of indicators “D.12”, “D.14” and “D.15” refer to reviews in scientific publications of the candidate’s works, i.e. the reviews must have been prepared by independent authors. In this sense, I regard the lists submitted by Assoc. Prof. Ivanov of a total of 42 peer reviews prepared by him for manuscripts submitted to international scientific journals solely as evidence of his high level of expertise, recognized by the editors of prestigious scientific journals, including impact-factor journals published by IEEE, Elsevier, MDPI and other publishers. An up-to-date check of his Web of Science profile shows that, as of 18.10.2026, Assoc. Prof. Ivanov had completed a total of 49 reviews of manuscripts by other authors submitted to more than 20 scientific journals. This is an indicator of the broad recognition by the scientific community of Assoc. Prof. R. Ivanov’s expertise and of the trust he has earned among editors of international scientific journals. His contribution to supporting scientific publishing, reflected in the large number of manuscripts and scientific publications he has reviewed, is also commendable.

To satisfy the minimum institutional requirements of TU-Gabrovo and the minimum national requirements under indicator group “E”, the candidate has provided:

- (i) a statement confirming supervision of 1 successfully defended doctoral candidate under indicator “E.17” (at least 1 is required);
- (ii) a list of 5 projects corresponding to indicator “E.18. Participation in a national scientific or educational project”;
- (iii) a list of 5 projects under indicator “E.20. Coordination of a national scientific or educational project” (at least 3 are required);
- (iv) a list of 5 university textbooks under indicator “E.23” (at least 2 are required);
- (v) a list of 1 university teaching guide under indicator “E.24”.

In Table 1, I present a comparison between the materials submitted by Assoc. Prof. R. Ivanov and the minimum national requirements for candidates for the academic position of “Professor”.

Table 1. Summary of the materials submitted by Assoc. Prof. R. Ivanov demonstrating fulfilment of the minimum national requirements for appointment to the academic position of “Professor” by indicator groups for Higher Education Area “5. Technical Sciences”

Indicator group	Content by indicators	Minimum national requirements for appointment to the academic position of “Professor”	Points Assoc. Prof. R. Ivanov
A	Indicator 1	50	50
B	Indicator 3 or 4	100	720
G	Sum of indicators 5 to 11	200	428.33
D	Sum of indicators 12 to 15	100	1270*
E	Sum of indicators 16 to 28	150	410
	Total for all indicators	720	2878.33

* Only points obtained from citations submitted under indicator “D.12” are included.

The comparison in Table 1 shows that the candidate fulfils the requirements under indicator “A”, while under indicator groups “B”, “G”, “D” and “E” he exceeds the minimum national requirements for appointment to the academic position of “Professor”. A comparison with the institutional requirements of TU-Gabrovo shows that the minimum requirements for the academic position of “Professor” are exceeded for all applicable indicators.

2. Assessment of the candidate’s teaching qualifications and activities

The candidate’s teaching activity spans approximately 35 years at the Technical University of Gabrovo, where he successively held the academic positions of “Assistant Professor” (1992–1994), “Senior Assistant Professor” (1995–2000), “Chief Assistant Professor” (2001–2004), and “Associate Professor” (2005–2026).

According to the certificate provided, the candidate is the lecturer for a total of 9 courses. Specifically, Assoc. Prof. Ivanov lectures in 5 courses for students enrolled in Bachelor’s degree programmes and 4 courses for students enrolled in Master’s degree programmes. A statement has been provided listing 5 published university textbooks and one teaching guide for laboratory exercises, all of which fully correspond to the subject area of the present competition. Although no statement has been provided concerning supervision of Bachelor’s or Master’s thesis students, developed curricula, or other related activities characteristic of the academic position of “Associate Professor”, this information can be found in the information system of TU-Gabrovo. The submitted documentation shows that Assoc. Prof. Ivanov supervised a doctoral candidate who successfully obtained the educational and scientific degree “Doctor” in 2025.

I consider the information provided fully sufficient to conclude that Assoc. Prof. R. Ivanov’s teaching activity merits an excellent assessment.

3. Main research contributions

Assoc. Prof. R. Ivanov has presented, in synthesized form, his principal contributions in the groups of publications corresponding to indicators “B.4”, “G.5”, “G.7” and “G.8”. I accept the claimed

contributions in substance, and, in my assessment, they are predominantly scientific and applied-research in nature. From my perspective, the main contributions in the candidate's monographic work and publications can be systematized into four important thematic areas:

- (1) methods and algorithms for intelligent localization, positional data processing, and navigation;
- (2) information models and algorithms for context-aware navigation and route planning in complex indoor environments;
- (3) intelligent assistive technologies and means of interaction with the environment, aimed primarily at people with visual impairments;
- (4) IoT, distributed architectures, and artificial intelligence methods for personalized services in smart environments.

In substantive terms, these contributions predominantly involve the acquisition of new knowledge and the development of new methods, algorithms, models, and architectural solutions, as well as applied research contributions related to their software and system implementation and experimental verification. Some of the results may also be classified as establishing new and confirmatory facts concerning the accuracy, efficiency, robustness, and usability of the proposed solutions. Particularly positive is the consistent progression from the formulation of algorithmic and modelling solutions to their implementation and testing in simulated and real-world environments, including with real users.

I note that the publications submitted in the competition reflect a substantial body of research and applied research activity, a large part of which was carried out independently by the candidate. I consider that the publications submitted in the competition, together with the candidate's participation in and leadership of many projects, authentically reflect the scope of Assoc. Prof. R. Ivanov's RTD activities.

4. Significance of the contributions to science and practice

The significance of the contributions formulated in the candidate's monograph and publications can be assessed on the basis of the number of citations by independent authors:

- (1) The submitted statement reporting a total of 127 citations by international authors in publications indexed in Scopus is a reliable indication that Assoc. Prof. Ivanov's work has attracted the attention of the international scientific community.
- (2) An up-to-date check as of 18.10.2026 shows that Assoc. Prof. Ivanov is a co-author of 32 publications indexed in Scopus, which have been cited by a total of 292 Scopus-indexed publications. According to this information, the citations to Assoc. Prof. Ivanov's publications correspond to a Hirsch index (h-index) of 9.
- (3) An up-to-date check in Google Scholar as of 18.10.2026 shows a total of 554 citations and a Google Scholar h-index of 11.

Taken together, these results provide an excellent assessment of Assoc. Prof. R. Ivanov's research activity and constitute grounds for concluding that the candidate's contributions are significant for both science and practice.

5. Critical comments and recommendations

I have no substantive comments or objections. I find the documentation excellently organized and convenient for verification of the factual information. All requirements for appointment to the academic position of “Professor” are exceeded. The candidate has achieved international recognition within the scientific community.

As my only recommendation to Assoc. Prof. R. Ivanov, I would suggest that, for the further development of TU-Gabrovo, it would be beneficial for him to direct part of his efforts toward establishing his own research school, primarily by supervising more doctoral candidates and by engaging in broader collaboration with the new generation of researchers.

CONCLUSION

The materials submitted for the competition allow an objective and comprehensive assessment of the qualifications and achievements of Assoc. Prof. Rosen Stefanov Ivanov, PhD, Eng. The formal comparison of the submitted statements and publications with the uniform minimum national requirements and the additional institutional requirements of the Technical University of Gabrovo for appointment to the academic position of “Professor” unequivocally demonstrates that all requirements are exceeded. This gives me sufficient grounds to support Assoc. Prof. R. Ivanov in the competition for appointment to the academic position of “Professor” in Professional Field “5.3 Communication and Computer Engineering”.

Date: 18.10.2026

JURY MEMBER: _____
/Prof. Todor Ganchev, PhD, Eng./