

REVIEW

by Dr Slavi Yassenov Lyubomirov, professor at Plovdiv University "Paisiy Hilendarski"

of the materials submitted for participation in a competition
for the academic position of "associate professor"
in Plovdiv University "Paisiy Hilendarski",

in field of higher education 5. Technical sciences,

professional field 5.3 Communication and computer technology (Computer systems, complexes and networks)

In the competition for "Associate professor", announced in the State Gazette, issue 99 of 11.11.2025, and on the website of Plovdiv University "Paisiy Hilendarski" for the needs of the Department of "Electrical Power Engineering and Communications" at the Faculty of Physics and Technology, with the candidate being Senior Assistant Prof. Dr. Eng. Stanislav Mitkov Asenov from the Department of "Electrical Power Engineering and Communications".

1. General presentation of the received materials

By order No. PD-22-51 of 09.01.2026 of the rector of Plovdiv University "Paisiy Hilendarski" (PU), I am appointed as a member of the scientific jury in the competition for the academic position of "Associate Professor" at the University of Plovdiv in the field of higher education 5. Technical sciences, professional field 5.3 Communication and computer technology (Computer systems, complexes and networks), announced for the needs of the Department of Electrical Power Engineering and Communications at the Faculty of Physics and Technology.

Only one candidate has submitted documents to participate in the announced competition: Assistant Professor Dr Eng. Stanislav Mitkov Asenov from Plovdiv University "Paisiy Hilendarski".

The set of materials on paper presented by Senior Assistant Professor Dr Eng. Stanislav Mitkov Asenov has been prepared in accordance with the requirements of the Act on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its implementation, as well as the Regulations for the Development of the Academic Staff of Plovdiv University "Paisiy Hilendarski". The submitted documentation is complete, correctly structured and includes all necessary documents for participation in the competition, namely:

- CV (European template); application for admission to the competition; annotations of scientific works according to Art. 65 of the PRASPU, including a habilitation certificate; list of scientific works, accompanied by copies of publications; certificate of fulfillment of the minimum national requirements and additional faculty criteria; declaration of originality and authenticity of the submitted scientific materials and documents; documents certifying the teaching and learning

activity, including a textbook for the discipline "Microprocessor Technology"; documents certifying the scientific research activity; extended habilitation certificate and a list of established citations of the candidate's scientific works.

Within the framework of the competition procedure, the candidate has submitted a total of 33 scientific publications, one monograph, one teaching aid, and a list of five research papers. Of the scientific publications submitted, six are not subject to review, since the reviewer is a co-author in them. In accordance with the principles of academic ethics and the requirements for objectivity, these publications are not included in the analysis and evaluation of the candidate's scientific output. The evaluated materials also include one teaching aid and five research projects. Scientific publications related to the dissertation are not included in the review, according to regulatory requirements.

The distribution of scientific publications by type and place of publication shows the candidate's active scientific activity. Fourteen of the peer-reviewed publications have been presented at international scientific conferences, which are referenced and indexed in globally recognised databases of scientific information, including Scopus. Fifteen publications have been published in non-refereed but peer-reviewed scientific journals or in edited collective volumes. Of all the scientific works presented, twenty-two have been published in English, which testifies to the aspiration for international scientific communication and dissemination of scientific results. In eleven of the scientific publications, the candidate is the lead (first) author, which is an indicator of his significant role in the formulation, development and presentation of scientific results.

Attached to the competition documentation are also official notes certifying participation in scientific conferences, as well as a certificate for the award for the best scientific article from the Electronics Conference held in 2020, which represents recognition of the candidate's scientific achievements.

All scientific publications are presented in full text in the form of publishing copies, which allows for an objective and complete assessment of their content and scientific contributions.

From the submitted report on the fulfilment of the minimum national requirements for holding the academic position of "associate professor", it is evident that the candidate, Senior Assistant Professor, Dr Eng. Stanislav Mitkov Asenov fully meets and even exceeds the required quantitative and qualitative indicators, according to the current regulations.

2. Brief biographical data (of the candidate)

The candidate in the competition, Senior Assistant Professor, Dr Eng. Stanislav Mitkov Asenov completed his secondary education at the "Hristo Botev" Vocational High School of Engineering and Technology, Smolyan, with a degree in "Electronic and Computer Engineering", which laid the foundations for his professional orientation in the field of electronics and computer technologies.

In 2010, he obtained a Bachelor's degree at the Technical University - Sofia, Plovdiv Branch, and in 2011, a Master's degree at the University of Food Technology - Plovdiv, thereby deepening his theoretical knowledge and professional training in the relevant scientific and technical field.

In 2021, he successfully defended his dissertation and obtained the educational and scientific degree "Doctor" in the professional field 5.3. "Communication and Computer Engineering", which represents an important stage in his scientific and academic development. In the period 2011–2017, the candidate worked as a lecturer in the discipline "Computer Systems" at the Vocational High School of Engineering and Technology "Hristo Botev", Smolyan, where he gained valuable pedagogical experience and strengthened his teaching skills.

From 2017 to the present, he has been part of the academic staff of the Plovdiv University "Paisiy Hilendarski", Faculty of Physics and Technology, Department of Electrical Power Engineering and Communications, where he successively holds the academic positions of "assistant" and "chief assistant". Within the framework of this academic activity, the candidate actively participates in the teaching, research and organisational activities of the department and faculty.

3. General characteristics of the candidate's activities

The educational and pedagogical activity of Senior Assistant Professor Dr Eng. Stanislav Mitkov Asenov is characterised by high activity, consistency and significant contribution to the preparation of students in the field of communication and computer technology, microcontroller systems and modern engineering technologies.

Particularly indicative of the candidate's teaching activity is his work with students as a scientific supervisor of diploma theses. Under his scientific supervision, 20 graduates have successfully defended their diploma theses in the educational and qualification degrees "bachelor" and "master" in various engineering fields, including computer and communication systems, hardware and software systems and 3D technologies for design and production. The topics of the diploma theses cover current areas such as IoT systems, microcontroller applications, communication networks, information security, virtual reality and intelligent electronic systems, which testifies to the relevance and practical focus of the training. A significant contribution to the practical training of students is also the participation of the candidate as an academic mentor of sixteen students within the framework of the "Student Practices" project, funded under the Operational Program "Science and Education for Smart Growth", which creates opportunities for acquiring practical skills and professional experience.

The scientific and applied research activities of Senior Assistant Professor Dr Eng. Stanislav Mitkov Asenov are characterized by consistency, relevance and practical focus in the field of communication and computer technology.

To participate in the competition, the candidate has submitted a total of 33 scientific publications, one teaching aid and five research papers. Of these, 27 scientific publications are accepted for review, which are outside the dissertation work and have not been used in other procedures for acquiring a scientific degree or academic position.

The scientific publications presented can be classified as follows:

By type of publications: scientific articles and reports in scientific publications and conference proceedings – 23 issues; teaching aids – 1 issue. By place of publication: publications in proceedings of international scientific conferences, refereed and indexed in international databases (Scopus) – 16 issues; publications in peer-reviewed scientific journals and edited collective volumes – 17 issues.

By language of publications: in English – 22 issues; in Bulgarian – 11 issues.

By authorship: publications in which the candidate is the first author – 11 issues; publications in co-authorship – the remaining publications.

The submitted scientific papers are in the field of communication and computer technology and reflect the scientific interests and research activity of the candidate. They contain results of a scientific and applied nature, aimed at solving current problems in the relevant scientific field.

The candidate has also participated in five research projects, which demonstrates his active engagement in research and ability to work in scientific teams. The results of the research are reflected in scientific publications and contribute to the development of the relevant scientific field.

The presence of publications in international scientific forums, as well as the established citations of the candidate's scientific works, are indicators of the recognition and significance of his scientific results in the scientific community.

Based on the materials presented, a reasonable conclusion can be drawn that the candidate's scientific output is sufficient in volume, up-to-date in content and fully meets the requirements for holding the academic position of "associate professor".

Contributions (scientific, applied science, applied) and citations.

Based on the analysis of the presented scientific works by groups of indicators B, D7 and D8, a reasonable conclusion can be drawn that the scientific research activity of Senior Assistant Professor Dr Eng. Stanislav Mitkov Asenov is characterised by consistency, relevance and a clearly expressed scientific and applied focus in the field of communication and computer technology.

The candidate's scientific contributions are related to the development of new models, methods and architectures of energy-efficient and energy-autonomous microcontroller and IoT systems, including LoRaWAN-based communication nodes, sensor systems and smart electronic devices. The developed methods for analysis, measurement and optimisation of energy consumption of

autonomous systems, as well as the created models for analysis and simulation of electronic, communication and measurement processes, are also of significant contribution.

A significant share of the contributions is of a scientific-applied nature and is aimed at developing experimental platforms, measurement systems, microcontroller-based devices and communication architectures that allow for practical implementation and verification of the proposed scientific solutions. The developed methodologies, laboratory stands, virtual laboratories and educational models contribute to the effective integration of modern engineering technologies into the educational process and to improving the quality of engineering education.

Particularly significant are the applied contributions, expressed in the development and implementation of real-life prototypes, autonomous sensor systems, communication platforms and measuring devices, which have found application both in a real engineering environment and in the educational process. Some of the developments have been successfully implemented in the laboratory and used in student training, which confirms their practical applicability and significance.

The candidate's scientific output covers current and promising areas, including the Internet of Things (IoT), energy-autonomous systems, microcontroller and communication technologies, measurement systems, virtual laboratories, and modern methods for engineering education. The obtained scientific results contribute to the development of existing knowledge in the relevant scientific field and find practical application in engineering practice and education.

In quantitative and qualitative terms, the candidate's scientific output fully meets the minimum national requirements and the additional criteria of Plovdiv University "Paisiy Hilendarski" for holding the academic position of "associate professor". The presented scientific works contain original scientific, scientifically applied and applied contributions, which testify to established scientific competencies, independence and ability to conduct scientific research.

Based on the evaluation, a definite conclusion can be drawn that Senior Assistant Professor Dr Eng. Stanislav Mitkov Asenov is a well-established scientist and lecturer with established scientific interests and significant scientific results that meet the requirements for holding the academic position of "associate professor".

In terms of content, the identified citations are mainly substantive and related to the use, analysis and development of the candidate's proposed models, architectures and methods in the field of IoT systems, LoRaWAN communications, electronic measurements and engineering education. The cited publications are used as a scientific basis in the development of new monitoring systems, communication solutions and educational platforms, which confirms their scientific significance and applicability.

In terms of authorship, the citations were made by both foreign scientists and Bulgarian researchers, which shows that the candidate's scientific results are recognisable both at the national and international level. Particularly indicative are the citations by authors who are not co-authors with the candidate and are not part of his scientific team, which testifies to the independent scientific value and independence of his scientific results. Some of the citations were made by authors working in related scientific fields, including Internet of Things, communication technologies, electronic systems and engineering education.

No citations of a negative nature or those that cast doubt on the scientific value of the publications have been identified. On the contrary, the citations confirm the scientific significance, relevance and applicability of the candidate's scientific results.

4. Assessment of the candidate's personal contribution

Based on the submitted scientific papers, the author's references and the analysis of the content of the publications, a reasonable conclusion can be drawn that Senior Assistant Professor Dr Eng. Stanislav Mitkov Asenov has made a significant personal contribution to the development of the scientific results submitted for participation in the competition.

A significant part of the scientific publications was developed with the leading participation of the candidate; in nine of them, he is the first author. This circumstance is indicative of his main role in the formulation of the scientific idea, the development of the methodology, the conduct of experimental studies, the analysis of the results and their scientific summary. In the publications developed in co-authorship, the contribution of the candidate is clearly recognisable and is related to the design and implementation of hardware and software solutions, the development of experimental setups, the performance of measurements and the analysis of the obtained results.

Based on the above, it can be categorically concluded that the formulated scientific, scientific-applied and applied contributions are to a significant extent the personal merit of the candidate. The results obtained reflect his scientific independence, in-depth professional training and ability to conduct scientific research and develop engineering solutions.

The candidate's personal contribution can be assessed as substantial and fully consistent with the requirements for holding the academic position of "associate professor".

4. Critical remarks and recommendations

After a detailed acquaintance with the presented scientific works, the teaching and research activities of the senior assistant, Dr Eng. Stanislav Mitkov Asenov, it can be noted that the candidate's scientific production is up-to-date, thematically consistent and contains significant scientific

and applied scientific results. Nevertheless, some principled and formal recommendations can be formulated that would contribute to the further development of his scientific activities.

It may also be recommended to expand participation in international research projects and scientific teams, which would create opportunities for the implementation of joint scientific developments and the exchange of scientific experience.

6. Personal impressions

I have positive personal impressions of the professional and academic activities of Senior Assistant Professor Dr Eng. Stanislav Mitkov Asenov was formed as a result of his participation in the teaching, research and organisational activities of the Faculty of Physics and Technology of Plovdiv University "Paisiy Hilendarski".

The candidate is distinguished by a high degree of professional responsibility, in-depth theoretical training and practical skills in the field of communication and computer technology. In his teaching activity, he demonstrates the ability to clearly and accessibly present the teaching material, as well as the ability to motivate students to actively participate in the learning process and scientific research activities.

The candidate is characterised by good professional and collegial qualities, skills for working in a scientific team and active commitment to the development of the educational and scientific activities of the department.

Based on the above, my personal impressions of the candidate are entirely positive and confirm his scientific and teaching competence and readiness to occupy the academic position of "associate professor".

CONCLUSION

The documents and scientific papers submitted by Senior Assistant Professor Dr. Eng. Stanislav Mitkov Asenov for participation in the competition for the academic position of "associate professor" are in accordance with the requirements of the Act on the Development of the Academic Staff in the Republic of Bulgaria (ADABRB), the Regulations for its implementation, as well as the Regulations for the Development of the Academic Staff of Plovdiv University "Paisiy Hilendarski".

The scientific and teaching qualifications of Senior Assistant Professor Dr Eng. Stanislav Mitkov Asenov are indisputable. The candidate possesses the necessary scientific training, teaching experience and research competence, which fully comply with the requirements for holding the academic position of "Associate Professor".

The results achieved by the candidate in academic and research activities fully comply with and cover the minimum national requirements, as well as the additional requirements of the Faculty

of Physics and Technology of Plovdiv University "Paisiy Hilendarski", adopted in connection with the Regulations for the Implementation of the ZRASRB.

Based on the analysis of the presented scientific works, their scientific significance and the scientific, scientific-applied and applied contributions contained in them, I give my categorical positive assessment and recommend to the esteemed Scientific Jury to prepare a proposal to the Faculty Council of the Faculty of Physics and Technology of Plovdiv University "Paisiy Hilendarski" for the election of Senior Assistant Professor Dr. Eng. Stanislav Mitkov Asenov to the academic position of "Associate Professor" in the field of higher education 5. Technical Sciences, professional field 5.3. Communication and Computer Engineering (Computer Systems, Complexes and Networks).

25.02. 2026

Reviewer:

Prof. Dr Eng. Slavi Lyubomirov