

# OPINION

by **Dr. Eng. NIKOLAY ATANASOV SHOPOV**,  
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Regarding the materials submitted for participation in a competition  
for the academic position of **Associate Professor**  
at **Plovdiv University “Paisii Hilendarski”**,

in the field of higher education 5. Technical Sciences, professional field 5.3. Communication and Computer Engineering (Computer Systems, Complexes and Networks).

In the competition for the academic position of **Associate Professor**, announced in the State Gazette, Issue No. 96 of November 11, 2025, and published on the official website of Plovdiv University “Paisii Hilendarski”, for the needs of the *Department of Electrical Power Engineering and Communications at the Faculty of Physics and Technology*, the applicant is **Chief Assistant Professor Stanislav Mitkov Asenov PhD** from Plovdiv University “Paisii Hilendarski”.

## **1. General Overview of the Procedure and the Candidate**

By Order No. PD-22-51 dated January 9, 2026, issued by the Rector of Plovdiv University “Paisii Hilendarski”, I was appointed as a member of the Scientific Jury for the competition for 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), with candidate Chief Assistant Professor Dr. Eng. Stanislav Mitkov Asenov.

The set of application materials submitted by the candidate, in both electronic and printed formats, complies with Art. 65 of the Regulations for the Development of the Academic Staff of Plovdiv University and Art. 53 of the Rules for the Implementation of the Academic Staff Development Act in the Republic of Bulgaria. The submitted documentation includes the following: Application form addressed to the Rector requesting admission to the competition; Curriculum Vitae in European format; Diploma for higher education conferring the educational and qualification degree “Master,” including the academic transcript; Diploma for the educational and scientific degree “Doctor (PhD)”; List of scientific publications; Copies of scientific publications; List of citations; Statement of compliance with the minimum national requirements; Abstracts of the materials under Art. 65 of the Regulations (in Bulgarian and in a foreign language), including an extended habilitation report; Self-assessment of scientific contributions; Declaration of originality and authenticity of the submitted documents; Certificate of employment record; Documents related to teaching activities; Documents related to research activities; Other supporting documents. Chief Assistant Professor Dr. Eng. Stanislav Asenov completed his Bachelor's degree in “Computer Systems and Technologies” at the Technical University of Sofia – Plovdiv Branch during the period 2006–2010. I have known Dr. Asenov since his enrollment in the Master’s program of the same name at the University of Food Technologies – Plovdiv during the period 2013–2014. Under my academic supervision, on February 28, 2014, Eng. Stanislav Asenov successfully defended his Master’s thesis entitled “Touch Screens with Application of Infrared (IR) Technologies.” I have co-authored a scientific publication with Chief Assistant Professor Asenov.

## **2. General Characteristics of the Candidate’s Academic Activity**

### **- Evaluation of the Candidate’s Teaching and Pedagogical Activity and Professional Qualifications**

From 2017 to 2021, Chief Assistant Professor Dr. Eng. Stanislav Asenov served at the Department of Electrical Power Engineering and Communications within the Faculty of Physics and Technology at Plovdiv University “Paisii Hilendarski”, holding the academic position of Assistant Professor. Since 2022, he has held the position of Chief Assistant Professor.

Over the years, Dr. Asenov has delivered lecture courses at the Bachelor's degree level in the following disciplines: Operating Systems, Computer Peripherals, Multimedia and Office Systems, Internet of Things, Automotive Sensors, Computer Systems and Technologies, Communication Protocols in Automobiles, Automotive Computer Modules, Battery Systems for Electric and Hybrid Vehicles, Computer Architectures, Diagnostics of Computer Systems, Power Supply Units in Telecommunications, among others.

In his capacity as a lecturer, he has also conducted laboratory and seminar classes in Power Supply Units in Telecommunications, Operating Systems, Java Programming, Diagnostics of Computer Systems, Computer Networks, Computer Peripherals, Computer Architectures, Information Security, and other subjects within the Bachelor's curriculum.

Dr. Eng. Stanislav Asenov is co-author of a university textbook entitled "Microprocessor Technology" (electronic edition). To date, he has participated in the development of 16 academic curricula. Since 2017, Chief Assistant Professor Asenov has supervised a total of 20 graduate students, reviewed 16 Master's theses, and co-authored 13 scientific publications with students.

Based on the above, I consider Dr. Stanislav Asenov to be a well-qualified academic with excellent teaching and pedagogical performance.

- *Evaluation of the Candidate's Scientific and Applied Research Activity.*

The submitted scientific works may be grouped into two main thematic areas:

IoT, wireless sensor networks, LoRaWAN-based low-power systems, energy-efficient sensor nodes, and intelligent systems – publications (B 4.2, B 4.3, B 4.6, B 4.9, B 4.10);

Application of artificial intelligence and digital tools in engineering education in the fields of computer and telecommunication engineering – publications (B 4.1, B 4.4, B 4.5, B 4.7, B 4.8).

Chief Assistant Professor Dr. Eng. Stanislav Asenov has submitted a total of 33 scientific publications, one university textbook (Microprocessor Technology), and evidence of participation in five research projects, as well as in four stages of the National Program "Young Scientists and Postdoctoral Researchers." Sixteen (16) of the submitted scientific publications are indexed in internationally recognized scientific databases (Scopus).

The presented publications are written in English (22 publications) and Bulgarian (11 publications). The candidate's scientific output may be classified as follows: 16 scientific publications in journals and proceedings indexed in internationally recognized scientific databases (Scopus); 17 scientific publications in peer-reviewed, non-indexed journals or edited collective volumes; In 13 of the publications, the candidate is the first author.

In my opinion, the scientific production of Chief Assistant Professor Dr. Eng. Stanislav Mitkov Asenov meets the minimum national and faculty requirements for the academic position of Associate Professor.

- *Contributions (Scientific, Scientific-Applied, and Applied) and Citations.*

In the submitted habilitation report, Chief Assistant Professor Dr. Eng. Stanislav Asenov has summarized the principal scientific, scientific-applied, and applied contributions of 10 scientific publications published in journals and proceedings indexed in internationally recognized databases (Scopus), which have received more than 10 citations in total. In my assessment, the presented contributions accurately reflect the results achieved by Chief Assistant Professor Asenov. In most cases, they may be categorized as scientific-applied and applied contributions. In my opinion, these contributions relate to the adaptation of established methods and algorithms, as well as to the development of new circuit designs, models, and software solutions within a dynamically evolving research field.

I consider the contributions declared by Chief Assistant Professor Dr. Eng. Stanislav Asenov to be fully sufficient for appointment to the academic position of Associate Professor, and they can be clearly structured and classified within the respective categories of scientific, scientific-applied, and applied contributions.

*- Implementation and Technology Transfer Activities*

For educational purposes in engineering education, a laboratory prototype of a wireless LoRaWAN sensor node with dual microcontrollers has been designed and implemented. This system represents an effective educational and research platform for training in low-power wireless sensor networks and LoRaWAN technologies. The platform contributes to the development of sustainable engineering competencies related to energy-efficient design, battery-free power supply solutions, and modern IoT communications.

In addition, a laboratory test bench for a driver authorization system based on real automotive components has been developed and implemented. This platform serves as an effective educational tool that combines professional diagnostics with experimental analysis. Furthermore, laboratory and experimental platforms integrating real hardware, simulation environments, and communication protocols have been developed for training in microcontrollers and embedded systems.

Within the courses he teaches, Chief Assistant Professor Dr. Eng. Stanislav Asenov has developed numerous laboratory exercises and experimental setups. Simulation systems and artificial intelligence tools have been integrated into the programming and development processes of microcontroller-based systems, enhancing both the practical and innovative aspects of the educational activities.

**3. Critical Remarks and Recommendations**

I do not have any critical remarks regarding the submitted materials or the overall academic performance of the candidate.

However, I would recommend that in the future the candidate make additional efforts toward publishing independent research works and initiating research projects in which he serves as principal investigator, with a focus on practical implementation and technology transfer. Such activities would further strengthen his academic profile and leadership in research and innovation.

**CONCLUSION**

The documents and materials submitted by Chief Assistant Professor Dr. Eng. Stanislav Mitkov Asenov comply with the requirements of the Academic Staff Development Act in the Republic of Bulgaria, the Regulations for the Implementation of the Academic Staff Development Act, and the respective Regulations of Plovdiv University “Paisii Hilendarski.”

The candidate has submitted a sufficient number of scientific publications produced after the materials used for the acquisition of the educational and scientific degree “Doctor (PhD).” His works contain original scientific and applied contributions that have received international recognition, a representative portion of which have been published in journals and proceedings indexed in internationally recognized scientific databases. His theoretical developments demonstrate clear practical applicability, with some directly oriented toward teaching activities. The scientific and teaching qualifications of Chief Assistant Professor Dr. Eng. Stanislav Mitkov Asenov are beyond doubt.

The results achieved by Chief Assistant Professor Dr. Eng. Stanislav Mitkov Asenov in both teaching and research activities fully meet the minimum national requirements as well as the additional requirements of the Faculty of Physics and Technology adopted in accordance with the Regulations of Plovdiv University for the implementation of the Academic Staff Development Act.

After reviewing the materials and scientific works submitted in the competition and considering their significance, as well as the scientific, scientific-applied, and applied contributions contained therein, I find it justified to give my positive evaluation and to recommend that the Scientific Jury submit a proposal report to the Faculty Council of the Faculty of Physics and Technology for the election of Chief Assistant Professor Dr. Eng. Stanislav Mitkov Asenov to the academic position of Associate Professor at Plovdiv University “Paisii Hilendarski” in the field of higher education 5. Technical Sciences, professional field 5.3. Communication and Computer Engineering (Computer Systems, Complexes and Networks).

February 18, 2026.

**Prepared by:** .....  
(Assoc. Prof. Dr. Eng. Nikolay Atanasov Shopov)