

OPINION

by **Assoc. Prof. PhD Eng. Borislav Hristov Milenkov**
University of Food Technology – Plovdiv

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

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 96 from 11. 11. 20 25 , 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, as a candidate , Senior Assistant Professor Dr. Eng . Stanislav Mitkov Asenov from the Department of "Electrical Power Engineering and Communications" participated.

1. General presentation of the procedure and the candidate

By order No. PD-22-51 of 09.01.2026 of the rector of Plovdiv University "Paisiy Hilendarski" (PU), I have been appointed as a member of the scientific jury in a competition for the academic position of "associate professor" at PU 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 submitted documents to participate in the announced competition.

The set of materials on paper presented by Senior Assistant Professor PhD Eng. Stanislav Mitkov Asenov is in accordance with the Regulations for the Development of the Academic Staff of the University of Sofia and includes the following documents:

- CV – European template;
- Application for admission to participate in a competition;
- Annotations of the materials under Article 65 of the PRASPU , including habilitation report;
- List of scientific works, accompanied by copies thereof;
- Certificate of compliance with minimum national and additional faculty requirements;
- Declaration of originality and authenticity of the attached documents ;

- Documents for study work (exercise manual on "Microprocessor Technology");
- Research papers;
- Extended habilitation report;
- List of citations found.

The candidate, Senior Assistant Professor, PhD. Eng. Stanislav Mitkov Asenov, has submitted a total of 33 scientific papers, 1 textbook and a list of 5 research projects. 33 scientific papers that are outside the dissertation are accepted for review and are taken into account in the final grade, 1 textbook and 5 research projects. The distribution of scientific papers by relevant headings, in the country and abroad, is as follows: in international scientific conferences, which are referenced and indexed in global databases (Scopus) with scientific information – 16. Scientific publications in non-refereed journals with scientific review or in edited collective volumes – 17. Of these, 6 are in English. In 11 (eleven) of all articles, the candidate is the first author.

Documents (in the form of official notes) for participation in scientific conferences, as well as a certificate for the best article from the Electronics Conference - 2020, were also presented.

All articles are attached in full text - publisher's copy.

The attached certificate of compliance with the minimum national requirements for holding the academic position of "Associate Professor" shows that the candidate fully meets them.

Group of indicators	Contents	Associate Professor	Candidate points
A	Indicator 1	50	50
B	Indicator 2	-	-
In	Indicators 3 or 4	100	186.67
G	Sum of indicators 5 to 11	200	214.02
D	Sum of indicators 12 to 15	50	100
E	Sum of indicators from 16 to the end	-	-

Brief biographical data of the candidate

The candidate in the competition graduated from the Vocational High School of Engineering and Technology "Hristo Botev" - Smolyan, majoring in "Electronic and Computer Engineering". In 2010, he graduated with a Bachelor's degree (Technical University - Sofia, Plovdiv branch), and in 2011 - a Master's degree (UHT - Plovdiv).

In 2021, he acquired the ONS "Doctor" in 5.3 Computer and Communication Engineering.

From 2011 to 2017 he was a teacher of "Computer Systems" at the "Hristo Botev" Vocational High School of Engineering and Technology - Smolyan.

From 2017 to the present, he has successively held the academic positions of "assistant" and "chief assistant" in the Department of "Electrical Power Engineering and Communications" at the Faculty of Physics and Technology of the "Paisiy Hilendarski" University.

Personal impressions

I met Senior Assistant Professor, PhD Eng. Stanislav Asenov, during my visit to the branch of the Faculty of Physics and Technology - Smolyan, as a member of the EG at the NEAA. During the conversations I had, I was impressed that he was well prepared theoretically and practically in the field of computer science.

I have an indirect impression of his scientific work as a reviewer of the project "Research and Optimization of Intelligent Wireless Sensor Nodes and Heterogeneous Sensor Networks for the Internet of Things", supervised by Prof. Dimitar Tokmakov (scientific supervisor of the candidate as a PhD student).

2. General characteristics of the candidate's activities

General characteristics of the candidate's activities

The candidate has submitted one manual (as a co-author) for exercises in the discipline "Microprocessor Engineering" for students of the specialties "Hardware and Software Systems", "Computer and Communication Systems" and "Electrical Power Engineering" from the Faculty of Physics and Technology of the "Paisiy Hilendarski" University. It has been peer-reviewed and is the result of the work of the authors on a research project FP17-TK-006/25.04.2017 at the "Scientific Research" fund.

Chief Assistant Professor, Dr. Eng. Stanislav Asenov was the scientific supervisor of 20 (twenty) graduate students from both OKS. His work with the graduate students has continued with joint articles on the topic of their thesis.

Evaluation of the candidate's scientific and applied scientific activities

To the competition for the academic position of "Associate Professor", Senior Assistant Professor Stanislav Asenov has attached 10 (ten) articles, formatted as an "Extended Habilitation Reference" (group B articles). All articles from the reference have been published in peer-reviewed international and national scientific forums, including conferences.

The articles from group "G" are 23 (twenty-three) in total. Six of them (G7) are in English and are referenced in Scopus and are from participation in reports at international scientific conferences.

The articles from group G8 are 17 in number, of which six are in English. The articles are from participation in student scientific sessions or scientific papers from national conferences with international participation. These articles (G8) are peer-reviewed.

In all articles (groups B and D), the candidate is a co-author. In four articles from group “B” and in eight from group “D”, he is the first author.

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

As of the date of submission of the documents for participation in the competition, the candidate has found and attached a reference for ten citations of two articles in which he is a co-author (B4.2. and D7.1.).

While working on this opinion, I checked Google. Scholar and Scopus and I found many more than these ten citations (7 8 citations according to information in Scopus).

The scientific contributions focus on the definition and design of innovative architectural and functional models of autonomous sensor nodes based on the LoRaWAN protocol. Particular attention is paid to the development of energy-harvesting and battery- less systems, as well as specialized models for monitoring the environment, urban infrastructure and the dynamics of human presence. A significant contribution is the development of methodological frameworks for the integration of simulation environments, CAN networks and algorithms with artificial intelligence in the context of modern engineering education.

The scientific and applied contributions cover the design and experimental verification of complex hardware -software architectures for energy-efficient IoT systems. A detailed analysis and optimization of energy autonomy parameters has been carried out, and solutions for sustainable long-term monitoring have been proposed. Within the framework of the research, laboratory prototypes, virtual environments and specialized educational platforms have been created, aimed at improving the quality of training in the field of embedded systems and intelligent communication technologies.

Applied contributions are materialized through the successful implementation of the developed systems and laboratory stands in real operational conditions. The implemented solutions cover sectors such as environmental monitoring, concepts for a "smart city" (Smart City) and autonomous sensor networks. The effectiveness and practical significance of the developments have been confirmed through their exploitation in real experimental environments and their direct integration into the learning process.

3. Critical remarks and recommendations

I have no critical remarks, but I recommend that the candidate make efforts to publish independently in the future and, after assuming the academic position of Associate Professor, develop research projects that he is the leader of.

CONCLUSION

The documents and materials presented by Senior Assistant Professor, PhD Eng. Stanislav Mitkov Asenov, meet all the requirements of the Act on the Development of the Academic Staff in the Republic of Bulgaria (ADSRB), the Regulations for the Implementation of the ADSRB and the relevant Regulations of the PAISIY HILENDARSKY PU.

The candidate in the competition has presented a significant number of scientific (33) works, published after the materials used in the defense of the PhD. The candidate's works contain original scientific and applied contributions that have received international recognition, with a representative part of them being published in journals and in scientific collections published by international academic publishing houses. His theoretical developments have practical applicability, with some of them being directly oriented towards academic work. The scientific and teaching qualifications of the chief asst. PhD eng. Stanislav Mitkov Asenov are undoubted.

Achieved by Senior Assistant Professor, PhD Eng. Stanislav Mitkov Asenov in academic and research activities fully comply with the minimum national and additional requirements of the Faculty of Physics and Technology, adopted in connection with the Regulations of the University of Applied Sciences for the Implementation of the Law on the State Educational Service of the Republic of Bulgaria.

After familiarizing myself with the materials and scientific papers presented in the competition and in view of analyzing their significance and the scientific, applied science and applied contributions contained in them, I find it reasonable to give my positive assessment and to recommend to the Scientific Jury to prepare a report proposal to the Faculty Council of the Faculty of Physics and Technology for the election of **Chief Asst. Prof. Dr. Eng. Stanislav Mitkov Asenov** to the academic position of "Associate Professor" at the "Paisiy Hilendarski" University in: field of higher education 5. "Technical Sciences", professional field 5.3 Communication and Computer Engineering (Computer Systems, Complexes and Networks)

February 27, 2026 y

Prepared the opinion :

Assoc. Prof. PhD Eng. Borislav Milenkov