



МИНИСТЕРСТВО НА ОТБРАНАТА

ИНСТИТУТ ПО ОТБРАНА „ПРОФЕСОР ЦВЕТАН ЛАЗАРОВ”

София 1592, бул. „Проф. Цветан Лазаров” № 2, факс: 02/92 21 808, <http://di.mod.bg>

OPINION

by Col. Prof. Dr. Nikolai Todorov Stoianov,
Full Professor at the "Prof. Tsvetan Lazarov" Defense Institute
on the competition for the academic position of "Associate Professor"
in the field of higher education 5 "Technical Sciences", professional
direction 5.3. "Communication and Computer Engineering",
scientific specialty "Radio Transmission and Radio Reception
Equipment",
announced in the State Gazette No. 29 of 04.04.2025
for the needs of the "Prof. Tsvetan Lazarov" Defense Institute
with a single candidate Dr. Ivan Penchev Ivanov

1. General characteristics of the candidate's scientific research, applied science and pedagogical activities

In the announced competition for the academic position of "associate professor", one candidate has applied - Dr. Ivan Penchev Ivanov. His full list of publications includes 47 titles. To participate in the competition, the candidate has submitted 25 works, which include: reports and articles presented at scientific conferences in our country and abroad - 24 pcs., monograph - 1 pc. Of the submitted works, 11 have been published independently, the remaining 14 are co-authored. Two of the publications are in English, and the rest are in Bulgarian. The publication in a collective is the result of Dr. Ivanov's participation in scientific and applied projects, research and development.

Dr. Ivan Ivanov realizes his competence and qualities as a researcher and implementer in the field of communication systems, architectural models, the design and construction of software-defined communication systems, approaches and models for building software-defined active and passive radar systems.

The works submitted for review are different of those submitted for the acquisition of the educational and scientific degree "doctor".

The candidate's research activities are related to theoretical models and concepts for studying communication systems, architectures and software-defined approaches for building complex interconnected systems.

The candidate's special training marks a hierarchical superstructure of knowledge, skills, simulation and implementation of developments in the field of communication systems.

Dr. Ivanov actively participates in 2 international research and development projects.

The self-assessment provided for compliance with the minimum requirements under the announced competition, provided by Dr. Ivanov, shows that he meets the minimum national requirements, according to the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for its implementation and the Regulations on the conditions and procedure for occupying academic positions at the "Professor Tsvetan Lazarov" Institute of Defense.

2. Assessment of the candidate's special training and activities

Dr. Ivanov began his research, teaching and development career in 1995 at VNTI-MO.

He obtained his educational and scientific degree "Doctor" in 2004, defending a PhD thesis on the topic: Research of a radio communication system for high-speed data transmission in mobile networks with military purposes.

Currently (2025) Dr. Ivanov holds the position of "Director of the Directorate" at the Defense Institute "Professor Tsvetan Lazarov".

I have known Dr. Ivanov since 2000, as a good professional. Working together with Dr. Ivanov gives me reason to confidently assert that he possesses the necessary knowledge and training in the field of communication technologies and approaches to their application in the field of security and defense, as well as to continue his research activities in this field.

3. Main scientific results and contributions

The candidate's works can be classified into the following areas of research:

- Works in the field of theoretical models and concepts for building software-defined communication systems – II.1.1, II.2.2, II.2.9, II.2.15, II.2.18.
- Works in the field of architectural models for the design and construction of communication systems for security and defense - II.1.1, II.2.2, II.2.4, II.2.10, II.2.11, II.2.12, II.2.14, II.2.17, II.2.18, II.2.19, II.2.21, II.2.23, II.2.31.
- Papers reflecting the candidate's achievements in the development, evolution and practical application of architectures and models for software-defined communication systems – II.2.1, II.2.2, II.2.3, II.2.4, II.2.5, II.2.6, II.2.8, II.2.13, II.2.15, II.2.16, II.2.20, II.2.21, II.2.23, II.2.31.

The research and applied scientific contributions in the works of the candidate Dr. Ivan Ivanov are in professional area 5.3. "Communication and computer technology". These contributions can be broadly defined as: systematization and summary of existing knowledge, methods and approaches for researching architectures and approaches for building communication systems.

The author's participation is documented and is in full accordance with the scientific research activities of the institute.

The documentation provided clearly shows that Dr. Ivanov's research and

related publications are topical and appreciated by a wide range of researchers, as evidenced by the 38 citations, 12 of which are in world-renowned databases (Scopus and Web of Science) and 26 in peer-reviewed collective volumes.

4. Assessment of the significance of contributions to science and practice

The most characteristic thing about the significance of the contributions to science and practice in the extensive work of Dr. Ivan Penchev Ivanov is their relevance. Contributions that bring solutions to today, tracing the vision of the requirements of tomorrow's technological solutions.

5. Critical notes on the submitted papers

I have no critical notes or comments on the scientific works thus provided to me.

6. Conclusion

Based on the overall assessments and taking into account the self-assessment of the candidate Dr. Ivan Penchev Ivanov, I believe that the requirements of the Law on the State of the Republic of Bulgaria, the Regulations for its implementation and the Regulations on the terms and conditions for holding academic positions at the Defense Institute "Professor Tsvetan Lazarov" have been met. This gives me reason to confidently give my positive assessment and to propose to the esteemed scientific jury to vote for awarding Dr. Ivan Penchev Ivanov the academic position of "associate professor" in the field of higher education 5 "Technical Sciences", professional direction 5.3. "Communication and computer technology", scientific specialty "Radio transmitting and receiving technology", for the needs of the Defense Institute "Professor Tsvetan Lazarov".

20.06.2025 г.
Sofia

Jury member: **Π**

(Col. Dr. Nikolai Stoianov, Full Professor)