



MINISTRY OF DEFENCE
**BULGARIAN DEFENCE INSTITUTE PROFESSOR TSVETAN
LAZAROV**

REVIEW

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Director of
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Under the competition for the appointment to the academic position of
“Associate Professor” for a civilian employee in the field of Higher Education
5 “Technical Sciences”, professional field 5.5 “Transport, Shipping and
Aviation”, and scientific specialty “Design and Construction of Automated and
Piloted Aircraft”, announced by Order No. 174 dated 27 March 2025 by the
Director of the Defence Institute and published in the State Gazette, issue 29 of
04 April 2025, the sole candidate is Assistant Professor Atanas Yordanov
Ganchev PhD from the “NIASO” Department at the Defence Institute
“Professor Tsvetan Lazarov.”

1. General Overview of the Candidate's Research, Applied Research, and Teaching Activity

Assistant Professor Atanas Yordanov Ganchev PhD is the sole candidate in the competition for the academic position of “Associate Professor.” For his research activity in connection with the competition, he has submitted one monograph and 13 articles presented at scientific conferences in Bulgaria. One of these works is co-authored, while the remaining are sole-authored. All articles are written in Bulgarian. According to the provided documentation, the candidate has submitted the required number of publications necessary for the position of “Associate Professor.”

The monograph is published in Bulgarian, aligns with the thematic focus of the announced competition, and is intended for the needs of the Defence Institute.

The report submitted by the candidate for meeting the minimum national requirements for Field 5 “Technical Sciences,” professional direction 5.5. “Transport, Shipping, and Aviation” shows the following points across indicator groups: A – 50 points; B – 100 points; G – 245 points; D – 63 points.

The evaluation of the submitted materials demonstrates that the candidate exceeds the minimum national requirements for holding the academic position of “Associate Professor” in Field 5 “Technical Sciences,” professional direction 5.5 “Transport, Shipping, and Aviation.”

His scientific work is focused on research related to the in-depth study and development of methods and technologies pertaining to aviation safety. A primary focus of the candidate's work is ensuring the airworthiness of aircraft designed for both Defence purposes and civil aviation. Throughout his research, he has actively participated in the design and construction of advanced aviation systems that contribute to the effective management and optimal use of technical resources, aiming to enhance the reliability, safety, and operational efficiency of aviation technology used in various sectors—from military operations to civilian

transport services. Overall, the candidate's research activities are directed toward implementing innovative solutions that improve the functioning of aviation systems and guarantee a high level of safety in their operation.

2. Evaluation of the Candidate's Special Training and Activities.

Assistant Professor Ganchev PhD is an accomplished researcher with more than ten years of experience in the field of Defence technologies and aviation safety. Throughout his career, he has devoted a significant portion of his research to studying and developing innovative methods aimed at improving the reliability of aircraft.

In 2018, he defended his doctoral dissertation titled “Minimizing the Negative Impact of Bird-Aircraft Collisions” and obtained his PhD in the field of Higher Education: 5. Technical Sciences, professional direction 5.1 “Mechanical Engineering,” thereby establishing his position among the leading specialists in this area.

By 2025, Atanas Ganchev holds the position of “Chief Assistant” at the Defence Institute, where he continues to develop his scientific interests and expert knowledge. His research firmly establishes him as a specialist with high competence in aviation technologies and their application in the fields of security and Defence.

His scientific developments and participation in various projects at the institute have made a significant contribution to enhancing the efficiency and safety of aviation equipment, thereby fostering advancements in military science and aviation technologies at both national and international levels.

3. Main Scientific Results and Contributions

The scientific works of Assistant Professor Atanas Yordanov Ganchev PhD can be classified into three main thematic directions:

- **Aviation Safety and Management of Ornithological Risk** – This area encompasses various analyses and models addressing issues related to

bird-aircraft collisions, the optimization of aviation safety, and the methodological provision of flight safety monitoring.

- **Unmanned Aerial Vehicles (UAVs) and Their Role in Defence** – This theme involves the assessment of reconnaissance capabilities and the use of UAVs in military conflicts, as well as various methods to counteract these systems.
- **Assessment and Extension of the Service Life of Aviation Systems** – This focuses on methods for evaluating the technical condition and extending the airworthiness of emergency rescue systems.

Assistant Professor Ganchev's PhD contributions fall under professional direction 5.5 "Transport, Shipping, and Aviation." They are characterized by the systematization and consolidation of existing knowledge, methods, and approaches for studying UAVs, aviation safety, and the management of ornithological risk.

The documentation provided by the candidate demonstrates that his research is current and has been validated by 21 citations in peer-reviewed collective publications. No evidence of plagiarism has been found, confirming the authenticity and originality of the presented scientific works.

4. Assessment of the Significance of the Contributions to Science and Practice

The research and development activities of Assistant Professor Atanas Yordanov Ganchev PhD are distinguished by their high relevance and significance for both science and practical applications. His research offers solutions to contemporary challenges while also outlining the future technological trends and requirements.

The scientific output of Assistant Professor Atanas Yordanov Ganchev PhD is focused on applied research in the Defence sector. He is recognized for a number of significant contributions related to the development of innovative solutions for the integration and application of UAVs, as well as the creation of

methodologies for assessing aviation safety and managing ornithological risk.

5. Critical Remarks on the Submitted Works

I have no significant critical remarks regarding the scientific works submitted for review. I would recommend that the candidate begin publishing in peer-reviewed scientific forums that are indexed in internationally renowned scientific databases.

6. Conclusion

Based on the presented materials and the self-evaluation provided by Assistant Professor Dr. Atanas Yordanov Ganchev, it can be concluded that all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, its implementing regulation, and the Regulation on the Conditions and Procedures for Holding Academic Positions at the Defence Institute “Professor Tsvetan Lazarov” have been met. This provides me with sufficient grounds to give a **positive evaluation** of the scientific output and the materials submitted by Assistant Professor Ganchev PhD. In light of the above, I consider that Assistant Professor Atanas Yordanov Ganchev PhD meets all the requirements and possesses the necessary qualifications to be appointed to the academic position of “Associate Professor.”

Reviewer:

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Col. Assoc. Prof. Eng.Zhivo Petrov PhD