



МИНИСТЕРСТВО НА ОТБРАНАТА
ИНСТИТУТ ПО ОТБРАНА „ПРОФЕСОР ЦВЕТАН ЛАЗАРОВ”
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REVIEW

by Prof. Dr. Eng. Dimitar Zhivkov Dimitrov,
“Todor Kablshkov” University of Transport – 1574 Sofia, 158 Geo Milev Str.

on the competition for the academic position „**Associate Professor**”
in the field of higher education 5. "Technical Sciences", professional field 5.2.
“Electrical Engineering, Electronics and Automation”, scientific specialty
“Automated Systems for Information Processing and Control”, published in the
State Gazette, issue 109/21.12.2021, in accordance with Order № OX-
1130/10.12.2021 г. of the Minister of Defence

with the candidate:

Major Dr. Eng. Angel Dimitrov Genchev
Senior expert at “Information Systems and Information Protection” Department,
“Development of C4I Systems” Directorate at
"Professor Tsvetan Lazarov" Defence Institute

1. PAPERS SUBMITTED BY THE CANDIDATE, WHICH ARE ACCEPTED FOR EVALUATION BY THE REVIEWER

In the announced competition for associate professor, Major Dr. Eng. Angel Dimitrov Genchev participates with 20 scientific papers. These papers are outside the papers submitted for the award of the scientific and educational degree of Doctor. As a reviewer, I accept all of the proposed scientific papers, as corresponding to the competition. The materials proposed for review can be divided into the following groups as follows:

- Monographs – 1 (II.1.1). From a total volume of 272 pages, 50% are accepted as author's contribution, which is sufficient for acceptance ;
- Scientific-applied reports – 3 (II.2.1, II.2.2, II.2.3);
- Reports – 12 (7 single author papers) including 9 in Bulgarian и 3 in English (II.2.4, II.2.5, II.2.8, II.2.9, II.2.10, II.2.11, II.2.12, II.2.13, II.2.15, II.2.17, II.2.18, II.2.19). Two additional reports are attached (II.2.20, II.2.21), but they are not proposed for review;
- Articles – 4 (II.2.6, II.2.7, II.2.14, II.2.16), including 2 in Bulgarian и 2 in English;
- Projects and research (НИРД) – 15, 8 of which are classified as scientific-applied, technical, working and system project and research (II.4.1, II.4.2, II.4.3, II.4.4, II.4.5, II.4.6, II.4.7, II.4.8), 3 national projects (II.4.9, II.4.10, II.4.11), 3 EU projects (II.4.12, II.4.13, II.4.14) and 1 NATO project (II.4.15);
- Other papers, applied research and software – 8, of which 3 independent (III.1, III.2, III.3, III.4, III.5, III.6, III.7, III.8).

After a thorough analysis of the candidate's scientific output, the following conclusions can be made about the candidate:

- can work in a team – most of his contributions in publications and projects are co-authored (monograph, publications and projects). Due to the lack of distribution protocols, I accept his participation in equal proportion to the number of participants;

- has many independent contributions in publications and projects, which proves his professional qualities and his ability to solve complex scientific, scientific-applied and applied problems, including applied software and information systems.

- Successfully participates in domestic and international teams, including European and NATO projects, which shows that he is a sought after and valuable expert.

2. GENERAL CHARACTERISTICS OF THE RESEARCH, THE SCIENTIFIC-APPLIED AND PEDAGOGICAL ACTIVITY OF THE CANDIDATE

Dr. Angel Genchev has completed his higher education at the Higher Military School, Shumen, specialty - "Computer Engineering and Automated Control of Troops", qualification "Engineer - Master". In 2006 he defended his doctoral dissertation at the Academy of Sciences on "Adaptive management of frequency resources in mobile cellular radio networks for military purposes" in the scientific specialty 02.07.20 "Communication Networks and Systems". He has completed courses in "Introduction to Oracle: SQL and PL / SQL", "Enterprise DBA Part1A: Architecture and Administration" and "Enterprise DBA Part1B: Backup and recovery" in the company Technology in Sofia. He also holds certificates for computer skills in "Administering Microsoft Share Point Portal Server 2003", "Designing IT Platform Collaborative Applications with Microsoft Share Point 2003" (Microsoft certified Partner for Learning Solutions).

The research activity of the candidate for associate professor is entirely related to the field of higher education 5. "Technical sciences", professional field 5.2. "Electrical Engineering, Electronics and Automation" and is in the fields of automated control systems, information processing methods, information security, modern information systems and technologies, cloud architectures and

virtualization, modern data centers, sensors and sensor technologies, modeling with generalized networks and information systems.

As a scientific-applied activity it can be summarized that Dr. Angel Genchev has worked independently or in cooperation in the development of several information systems in the field of defence, which are implemented for operation. He also participates in international and national research projects under research programs related to cybersecurity, artificial intelligence, European research networks, etc. He gained rich practical experience in the immediate implementation of the duties in the specialized units for construction and development of information and communication systems and technologies for the needs of defence.

No evidence has been presented for his pedagogical activity and for this reason I do not give my assessment in this direction, but still the presented monograph can be used as a methodological tool for teaching students and others.

3. EVALUATION OF THE CANDIDATE'S SPECIAL TRAINING AND ACTIVITY

With regard to the special training and activities of the candidate for associate professor I can not give a definite opinion, but the indirect assessment of scientific papers and projects in which he participates can be judged by the presence of such training and expertise in the military field.

4. MAIN SCIENTIFIC RESULTS AND CONTRIBUTIONS

The main contributions of the candidate can be attributed to the field of higher education 5. "Technical Sciences", professional field 5.2. "Electrical Engineering, Electronics and Automation" and can be summarized in the following areas:

- information and communication technologies for the needs of defence, design and construction of automated information systems, data centers and collaboration systems;
- creation of conceptual, technical, experimental and other models, methods, approaches and methodologies to support the management process, analysis of cybersecurity and those for the development of communication and information infrastructure of defence on a modern technological basis.
- practical realization of the achieved theoretical results and their proving and realization in practice - as working, implemented modules, subsystems and systems or built test prototypes. The presented works have a scientific and applied nature and are based on solutions tested in practice - in the process of design, construction and implementation of developments for the needs of defence.

I accept the scientific and applied contributions presented by the candidate, divided into groups, as follows:

- Research related to information and communication systems and technologies, cybersecurity, data centers and cloud environments.
- Research related to integrated collaborative information environments and computer systems to support decision-making in crisis management.
- Automated control systems, automated information systems and application programs for the needs of defence.

5. SIGNIFICANCE OF CONTRIBUTIONS TO SCIENCE AND PRACTICE

I evaluate the significance of the contributions by their application in the various projects (international and national), in which Major Dr. Angel Genchev was a participant and leader. I pay special attention to the application tools he uses for the practical application and use of the software created by the author.

6. EVALUATION OF THE AUTHOR'S PARTICIPATION IN THE RECEIPT OF CONTRIBUTIONS

To me, the personal contribution of the candidate is unquestionable. This can be seen not only in his individual works, but also in the joint ones in which he participates. I did not find plagiarism and I accept that the works and contributions are the personal work of the candidate.

7. CRITICAL NOTES ON REVIEWED PAPERS

The critical remarks and recommendations I give are not essential to the competition and are aimed at improving the future work of the candidate and they are the following:

- It is not clear everywhere what the author's contribution is, for example in the monograph it is not clear what his participation is, as well as in the joint publications, etc.
- I noticed that some scientific publications cite popular sources such as Wikipedia and others. It is better to indicate the originals and more specialized sources.
- I recommend in the future that the candidate seeks a form for pedagogical expression (training of students, graduates and doctoral students) - the academic position of "associate professor" also has a pedagogical function.

8. PERSONAL IMPRESSIONS AND OTHER ISSUES WHICH THE REVIEWER THINKS THAT SHOULD BE CONSIDERED

I do not know the candidate personally and I cannot give a direct assessment, but judging by the presented works I believe that Major Dr. Angel Genchev is a thorough scientist and can solve complex scientific and applied problems and implement them in practice and military science.

9. CONCLUSION

I express my conviction that Major Dr. Angel Genchev is a highly erudite, educated and correct scientist and researcher. His general self-assessment of the compliance with the minimum requirements for a competition announced in the State Gazette (issue 109/21.12.2021). for the academic position of "associate professor" shows that he exceeds the minimum state requirements. This gives me reason to express my positive opinion and to invite the esteemed members of the scientific jury to support and vote positively for the academic position of "Associate Professor" for a serviceman in the field of higher education 5. "Technical sciences", professional field 5.2. "Electrical engineering, electronics and automation" in the scientific specialty "Automated Systems for Information Processing and Control" of Major Dr. Eng. Angel Dimitrov Genchev.

Date: 6 April 2022
Sofia

REVIEWER/ II /.....
/Prof. Dr. Eng. D. Dimitrov/