### PROFESSOR TSVETAN LAZAROV DEFENCE INSTITUTE

### **OPINION**

by
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**About:** Scientific papers submitted for participation in a competition for the academic position of "Associate Professor".

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#### GENERAL INFORMATION ABOUT THE COMPETITION

The competition is in the scientific field 5. Technical sciences, professional field 5.2. Electrical engineering, electronics and automation, in the scientific specialty "Automated systems for information processing and control".

It is held for the needs of "Information Systems and Information Protection" department in "Development of C4I Systems" directorate of "Professor Tsystem Lazarov" Defence Institute.

It was published in the State Gazette, issue no. 109 / 21.12.2021, in accordance with the Order of the Minister of Defense of the Republic of Bulgaria № OX-1130 / 10.12.2021.

One candidate, Major Dr. Eng. Angel Dimitrov Genchev, submitted documents on the topic of the competition. He is a senior expert in "Information Systems and Information Protection" Department of "C4I Systems Development" Directorate at the Professor Tsvetan Lazarov Institute of Defence.

### **EVALUATION OF THE SUBMITTED DOCUMENTS**

The documents presented in the competition are sufficient, in volume and content, to clarify the research, applied and pedagogical activities of the candidate.

From the materials submitted for review it can be seen that the candidate meets the requirements for the minimum scientometric indicators, which are defined in the "Regulations for the implementation of the law on the development of academic staff in the Republic of Bulgaria", in its part concerning professional field 5.2. Electrical engineering, electronics and automation.

### CHARACTERISTICS OF THE RESEARCH, SCIENTIFIC-APPLIED AND PEDAGOGICAL ACTIVITY OF THE CANDIDATE

For the needs of this competition, Major Dr. Eng. Angel Genchev presented 20 titles for review, as follows: 1 monograph (in Bulgarian), 19 scientific articles and reports, five of which are in English, the rest in Bulgarian.

According to their content, the scientific papers submitted for

review are in the field of thematic focus of the competition. They cover the following areas:

- communication and information systems;
- protection of information in communication and information systems;
- automated management systems, including for the needs of defense security;
  - computer systems for decision support;
  - application software solutions with specific focus.

Major Dr. Eng. Angel Genchev has participated in the development of international and national research projects, including: "Homemade Explosives and Recipes characterisations", "European network of Cybersecurity center and competence Hub for innovation and Operations"; CyberTwin; "Malicious Network Activities Monitoring and Data Analysis".

Not a small part of the candidate's scientific activity is related to the development of specific means and systems for the needs of security and defense. The nature of this activity does not allow the results of them to be the subject of free discussion. In view of the official duties I have performed in the past, I am familiar with many of these activities and the results of them in detail. Given this, in forming the final assessment of the research activities of Major Dr. Eng. Angel Genchev will take into account his overall scientific output.

Major Angel Genchev is a distinguished researcher, with a high degree of competence and proven professionalism in the performance of his official duties.

I have not received an anonymous, non-anonymous and motivated written signal for ascertained plagiarism in the candidate's scientific publications.

# EVALUATION OF THE CANDIDATE'S SPECIAL TRAINING AND ACTIVITY

Major Dr. Angel Genchev graduated from the Higher Military School of Artillery, Air Defence and CIS-Panayot Volov, Shumen, majoring in Computer Science and Automated Control of Troops. He has been working in the field of military and military science since 1998.

In 2006 he defended his dissertation and was awarded the educational and scientific degree "Doctor". The topic of his dissertation is in the subject area of the competition.

Major Dr. Angel Genchev has extensive experience in his

professional field and has repeatedly proven in his work his very good knowledge, which in scope many times exceeds the thematic focus of the current competition for the academic position of "Associate Professor".

# MAIN SCIENTIFIC RESULTS AND BENEFICIAL MOMENTS IN THE APPLICANT'S SCIENTIFIC PRODUCTION

The scientific results and the contribution moments received by the candidate and reflected in this part of his scientific production, which is presented for review in this competition, I define as follows:

- A. Enrichment of existing knowledge in the scope of the overall scientific production of the applicant;
- B. Research and application of the obtained scientific results in practice [II.2.1, II.2.2, II.2.3, II.2.4, II.2.5, II.2.6, II.2.7, II.2.8, II.2.9, II.2.11, II.2.12, II.2.13, II.2.14, II.2.15, II.2.16, I.2.17, II.2.18, II.2.20, II.2.21, II.4.9, II.4.10, III.7, III.8], including:
- a methodology for risk assessment in information systems operating in the conditions of security and defence systems is proposed [II.2.1];
- methods for development of information technologies in the defence system have been developed [II.1.1, II.2.1, II.2.4, II.2.5, II.2.7, II.2.8, II.2.12, II.2.15, II.2.17, II.2.20, II.2.21], including a model for decision-making in crisis management conditions [II.2.16];
- an architectural approach is proposed to build an information environment for collaboration [II.2.2, II.2.6];
- methods have been developed for obtaining sensory information from unmanned aerial vehicles [II.2.9, II.2.11, II.2.13];
- -methods are proposed for translating visual-sensory information over rough terrain [II.2.14] and solutions are given for visualization of this information [II.2.18];
- technological, structural, operational-tactical, technical-economic requirements and solutions related to the development of automated defense and security systems have been developed [II.4.9, II.4.10, III.7, III.8].

# ASSESSMENT OF THE SIGNIFICANCE OF CONTRIBUTIONS TO SCIENCE AND PRACTICE

The contributing moments in the works of Major Dr. Eng. Angel Genchev have proven importance for science, in theoretical and applied aspects, as well as for the needs of practice. In addition to what is said in this opinion, this is further confirmed by citations from foreign authors and the implementation of the results of the applicant's research activities in the implementation of a number of projects, both international and national.

#### PERSONAL IMPRESSIONS

I am well acquainted with Major Dr. Eng. Angel Genchev from our joint work at the Institute for Advanced Studies in Defence. In his work he has always shown a high degree of responsibility and depth. My acquaintance with the publications of this competition further strengthened my idea of him as a complete scientist, with a broad culture and proven professionalism.

#### **CONCLUSION:**

Having in mind the results of the analysis of the scientific production of Major Dr. Eng. Angel Genev and taking into account what has been said in full in this opinion, I will vote in favor of appointing him to the academic position of "Associate Professor" at "Prof. Tsvetan Lazarov" Defence Institute.

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