



ATTITUDE

in a competition for the academic position of Associate Professor in Professional Field 5.3 - "Communication and Computer Engineering", scientific specialty "Computer Vision" at the University "Prof. Dr. Asen Zlatarov" - Burgas, announced in State Gazette No 5 / 17.01.2020 with candidate:

Dr. Eng. Todor Pavlov Kostadinov

Member of the scientific jury: Prof. Dr. Andon Dimitrov Lazarov, Nikola Vaptsarov Naval Academy - Varna

1. General characteristics of the research and scientific-applied activity of the candidate

1. Monographic work 1 pc.
2. Scientific publications in referenced and indexed in world-famous databases with scientific information: 16 pcs.
Articles at international scientific conferences abroad 11 pcs.
Articles at international conferences in Bulgaria 3 pcs.
Articles in international magazines 2 pcs.
3. Scientific publication in non-refereed journals with scientific review or in edited collective volumes: 16 pcs.
 - a. Articles at international scientific conferences in Bulgaria 11 pcs.
 - b. Articles published in magazines in Bulgaria 4 pcs.
 - c. Articles published in magazines abroad 1 pc.
4. Teaching aids 2 pcs.

Quantitative characteristics of the research and scientific-applied activity of the candidate follows, directly, from the reference for the publications of the candidate, which has the following content: 1 monograph in English and 32 peer-reviewed publications. Out of a total of 32 publications, 15 are included in the Scopus and Web of Science databases.

Papers 1.1 - monograph and papers 2.1 -2.10, 3.1 are not peer-reviewed due to co-authorship with the candidate, but I accept the reviewers' assessments to these publications to be in publications indexed in Scopus and Web of Science.

Scientific publications are classified into three main areas:

1. Construction of algorithms and their software for obtaining radar images with the methods of reverse and direct aperture synthesis: works in accordance with the proposed list [1.1, 2.1-2.9, 2.10, 3.1, 3.2, 3.3, 3.12, 3.13, 3.18].
2. Design of hardware, software and algorithms of complex communication systems for control, monitoring, diagnostics and visualization: works in accordance with the proposed list [2.11, 2.12, 3.4, 3.10, 3.11, 3.16, 3.17].
3. Study the application of innovative decision-making approaches in the presence of a large number of criteria based on intuitive fuzzy sets and generalized networks of works in accordance with the proposed list [2.13, 2.14, 3.5, 3.8, 3.9, 3.14, 3.15, 3.17].

1. Assessment of the pedagogical preparation and activity of the candidate

Dr. Todor P. Kostadinov conducts classes in the following disciplines:

Bachelor's Degree: Lecture courses: Modern information technologies, Signal processors, Engineering design, Multimedia systems and technologies., Laboratory exercises: Signals and systems Computer networks, Engineering design, Signal processors Communication equipment, Wireless networks, Modern information technologies, New Computer peripherals, digital circuitry, multimedia systems and technologies.

Master's Degree: Computer Networks and Communications, Network Administration, Modern Information Technology, Unix / Linux, Computer Vision.

To ensure the learning process, two textbooks have been developed, published by the University "Prof. Dr. Asen Zlatarov "Burgas.

Average annual workload over 700 - 800 hours.

Assistant Professor Dr. Todor Kostadinov is the author and co-author of two textbooks: Specialized Practice (author) and Laboratory Exercises in the discipline Signals and Systems (co-authored). He is the leader of 11 diploma projects of successfully defended graduates of the University "Prof. Dr. Asen Zlatarov.

Project activity: Assistant Professor Dr. Todor Kostadinov participates in 7 internal university projects, 7 national research and educational projects and 1 international research project under the NATO SCIENCE FOR PEACE AND SECURITY PROGRAM.

3. Main scientific and applied scientific contributions

The contributions in accordance with the main directions of the research activity of Assistant Professor Todor Kostadinov can be formulated as follows.

Scientific contributions:

1. Creation of mathematical models and computational algorithms for synthesis of highly informative signals and reconstruction of images in the field of aperture synthesis.
2. Design and research and software of signal-light marine system for orientation and navigation of sea vessels.
3. Development of innovative methodologies for decision-making in the presence of a large number of criteria based on intuitive fuzzy sets and generalized networks of works in accordance.

Applied contributions:

1. Computational programs have been developed for simulation of signal structures and image reconstruction in the field of aperture synthesis.
2. A signaling system for navigation of maritime transport has been practically implemented.
3. Software for the functioning of a multi-criteria decision-making system has been developed.

Contributions can be assessed as the construction of new methods, algorithms, designs and technological solutions in the field of information processing, maritime navigation and multi-criteria decision-making systems. The large number of publications and creative productions give grounds to note the personal contribution of the candidate in the scientific and scientific-applied contributions. Judging by the number of citations 26, the original technical and program solutions, it can be concluded that Assistant Professor Dr. Todor Kostadinov is a specialist with international recognition and contribution in the scientific field of the competition.

4. Significance of contributions to science and practice

Based on the active journalistic activity, mainly abroad, the high number of citations 26 emphasizes the value of the contributions in the scientific works of the candidate. In terms of volume and quality of the content, the scientific and scientifically applied contributions in the publications of Dr. Todor Kostadinov exceed the quantitative indicators of the criteria for holding the academic position "Associate Professor".

His participation in an international research project on geophysical measurements of the relief of the Caucasus in the area of Lake Sevan with satellite radar systems and the large number of citations 26 in publications indexed in Scopus unequivocally show that the candidate has high professional qualities and experience as a researcher and pedagogue.

5. Critical remarks and recommendations

Critical remarks can be made about the scientific production in terms of the style and presentation of some of the publications, the lack of citations of texts and formulas borrowed from other authors.

CONCLUSION

The scientific production in terms of volume, quality, scientific and scientific-applied contributions fully complies with the Law of Academic Staff Development and the Regulations for its implementation. This gives arguments to convincingly propose to the Faculty Council to vote Assistant Professor Dr. Todor Pavlov Kastadinov to take the academic position of "Associate Professor" in Professional field 5.3 - Communication and Computer Engineering, scientific specialty "Computer Vision".

Date: 25.07.2020.

MEMBER OF THE JURY

(Prof. Dr.Sc. A. D. Lazarov)