

REVIEW

by Prof. DSc Ivan Ganchev Garvanov

University of Library Studies and Information Technologies,
member of the scientific jury according to the Order of the Rector of the University
"Prof. Dr. Asen Zlatarov", Burgas, № RD – 292 / 19.09.2022. and Decision of the
Scientific Jury from 04.10.2022, regarding the competition for the academic
position of "associate professor", field of higher education 4. "Natural sciences,
mathematics and informatics", professional field 4.5 Mathematics (Higher
Mathematics), published in the State Gazette № 45/17.06.2022

The only candidate for the competition is: Assistant Professor Stancho Vulkanov
Pavlov, PhD

1. Information about the contest

The review was prepared by Prof. DSc Ivan Ganchev Garvanov, according to
the Law on the Development of the Academic Staff in the Republic of Bulgaria, the
Rules for its Implementation and the Rules for the Terms and Conditions for
Acquiring Scientific Degrees and Titles of Academic Positions at the University
"Prof. Dr. Asen Zlatarov", Burgas.

The competition for the academic position "Associate professor" in the field
of higher education 4. "Natural sciences, mathematics and informatics", professional
field 4.5. Mathematics, published in the State Gazette № 45/17.06.2022 for the needs
of the "Mathematics and Physics" Department of "Prof. Dr. Asen Zlatarov"
University, Burgas.

2. Contest candidate

The only candidate for the competition is: Assistant Professor Stancho
Vulkanov Pavlov, PhD. The candidate works at "Prof. Dr. Asen Zlatarov"

University, Burgas and fulfills the minimum national requirements for acquiring the academic position of "Associate professor".

The candidate completed his secondary education at the PMG "Acad. Nikola Obreshkov" in Burgas in 1976. In 1982 he graduated from Paisii Hilendarski Polytechnic in Plovdiv, majoring in mathematics. In 2015, he obtained the educational and scientific degree "Doctor" in the scientific specialty "Informatics" at the Neophyt Rilski University of Blagoevgrad with the topic of his dissertation "Actual problems of the mathematical theory of catastrophes - computer simulation". After obtaining the educational and scientific degree "Doctor" in 2015, the candidate in the competition was appointed to the position of Assistant Professor at "Prof. Dr. Asen Zlatarov" University, Burgas.

From the applicant's CV it can be seen that, consistently over time, he has accumulated a lot of practical skills and theoretical knowledge. I believe that the candidate is a well-rounded professional, teacher and researcher with enviable knowledge and skills, and that he should continue to work in the future with this enthusiasm.

3. Quantitative and qualitative evaluation of the presented scientific works for the competition for "Associate professor"

Candidate Stancho Valkanov Pavlov, assistant professor, participated in the competition for the academic position of "Associate professor" with one monographic work, 22 scientific works, and 30 citations.

The attached scientific works are not used for the acquisition of the educational and scientific degree "doctor" and are on the subject of the competition.

The monographic work "General Analysis of Catastrophes" was published in 2019 with a volume of 130 pages and was reviewed by two qualified persons.

The monographic work is an in-depth scientific study examining the problems of accidents in the field of aviation, mechanics, analytical chemistry, elementary particle physics, etc. The monograph provides an overview and analysis of the catastrophes, the stability of the systems in the event of catastrophes is investigated.

Mathematical optimization approaches and unintended consequences are shown. The monograph would be useful for students and researchers in conducting research and analysis.

The fulfillment of the minimum national requirements for the groups of indicators for the academic position "Associate professor" is as follows:

For group "A", the candidate presented a copy of the diploma for educational and scientific degree "doctor" issued by the University "Neophyt Rilski" Blagoevgrad on 04/30/2015, with number 0154.

For group "B", the candidate presented a monographic work - 100 points.

For group "G" 200 points are required. These points can be obtained from publications indexed in Scopus and WoS. The applicant submitted a list of 22 publications, only 5 of which are visible in the databases. Since these articles are highly rated and one of them is with Q1 and 3 are with SJR, I rate them with 183 points. The candidate for the competition has also submitted a Patent Certificate, which brings him another 25 points or for group "G" I establish 208 points.

For group "D", the candidate indicated a list of citations, some of which are not included in the scoring, but from the reference in Scopus it can be seen that he has 13 citations, which are sufficient and form a total of 104 points.

For group "E", the candidate has attached references for participation in two international projects and four textbooks and study aids developed by him. 200 points are collected for this group.

From the analysis made in this way, it was established that the presented evidence from assistant professor Dr. Stancho Valkanov Pavlov fulfill the minimum national requirements set in the the Law on the Development of the Academic Staff in the Republic of Bulgaria and Implementing Regulations of the Law on the Development of the Academic Staff in the Republic of Bulgaria, for occupying the academic position "associate professor" in PF 4.5. "Mathematics".

When a check was made on 03.11.2022 about the scientometric indicators of the candidate in Scopus, Web of Science and Google Scholar, the following was found:

The number of publications in Scopus is 4, the number of citations is 13 and the h-index is 1.

The number of WoS publications is 1, the number of citations is 12 and the h-index is 1.

The number of citations in Google Scholar are 31 and h-index 2.

4. Quantitative and qualitative assessment of teaching and learning work

Assistant Professor Dr. Stancho Vulkanov Pavlov is a long-time teacher at "Prof. Dr. Asen Zlatarov" University, Burgas. He has been in the position of assistant professor for the past 7 years. His teaching competence fully meets the announced competition.

Assistant professor Dr. Stancho Vulkanov Pavlov has developed textbooks on "Higher Mathematics", respectively the 1st, 2nd and 3rd parts.

It can be seen from the attached tender documents that Assistant Professor Dr. Stancho Vulkanov Pavlov takes an active part in both the teaching and research work of the university.

5. Identification of scientific contributions

I believe that the publications presented by the candidate for review in the competition are for the most part his personal work, despite the co-authorship of some of them. The presence of more than one author in the publications shows that he manages to work well in a team and obtain high scientific results, which is confirmed by the places of their publication.

The contributions presented by assistant professor Dr. Stancho Pavlov are of a scientific and scientific-applied nature. I accept the candidate's contributions as significant, real and enriching existing theory and practice.

I attributed the contributions to the following scientific directions:

- Biological modeling in plants;
- Digital methods applied in physics and chemistry;
- Crash simulations and analysis of dynamic systems.

6. Critical notes and recommendations

The documents submitted for the competition are not well completed and make it difficult to review them. There are errors in the document showing the implementation of the minimum national requirements for acquiring the academic position of "Associate professor".

I allow myself to recommend to assistant professor Dr. Stancho Pavlov to be the scientific supervisor of doctoral students in order to pass on his scientific and teaching experience to the next generation of Bulgarian teachers and researchers.

7. Conclusion

After having familiarized myself with the materials and scientific works presented in the competition and based on the analysis of their significance and the scientific and scientific-applied contributions contained in them, I confirm that the scientific achievements meet the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, Implementing Regulations of the Law on the Development of the Academic Staff in the Republic of Bulgaria, and the rules for the conditions and the procedure for acquiring scientific degrees and titles of academic positions at the University "Prof. Dr. Asen Zlatarov", Burgas.

Assistant professor Dr. Stancho Pavlov meets the minimum national requirements in the professional direction and no plagiarism has been found in the scientific works submitted for the competition.

All this gives me reason, convinced, to give my positive assessment of the candidacy of Assistant professor Dr. Stancho Vulkanov Pavlov for taking the academic position "associate professor" in professional direction 4.5. "Mathematics".

Date: 05.11.2022

Member of the scientific jury:

/Prof. Ivan Garvanov/