

OPINION

by Associate Professor Veselina Kuncheva Bureva, PhD,
“Prof. Dr. Assen Zlatarov” University – Burgas

on the documents submitted by
Senior Assistant Prof. Peter Mladenov Vassilev

for participation in the concourse for acquiring the academic position “Associate Professor” in the field of higher education 4. Natural Sciences, Mathematics and Informatics, Professional field: 4.6. “Informatics and Computer Science”,
Scientific specialty “Informatics”,
announced in the State Gazette, issue 30/13.04.2021

1. General information about the candidate

Chief Assistant Professor Dr. Peter Mladenov Vassilev is the only candidate in the announced concourse. He was born on 04.09.1981. He graduated Sofia University “St. Kliment Ohridski” in 2006. In 2009 he obtained a Master’s Degree from the Technical University – Sofia. He defended his dissertation for educational and scientific degree “Doctor” (PhD) entitled “Intuitionistic fuzzy sets with membership and non-membership functions in metric relation” at the Institute of Biophysics and Biomedical Engineering at the Bulgarian Academy of Sciences. Starting in 2013 Dr. Peter Mladenov Vassilev has been an assistant professor, and since 16.09.2013 he has been a Senior Assistant Professor at the Institute of Biophysics and Biomedical Engineering – Bulgarian Academy of Sciences (IBPhBME-BAS).

2. Description of the submitted materials

Chief Assistant Professor Dr. Peter Mladenov Vassilev PhD participates in the competition for the academic position “Associate Professor” with 30 publications as follows:

- 9 publications (*Indicator V*) – 1 publication in quartile Q1 and 1 publication in quartile Q3
- 21 publications referenced and indexed in world-renowned scientific information databases (*Indicator G*) as follows:
 - 3 publications with IF in quartile Q4, 1 publication in quartile Q1, 2 publications in quartile Q2;
 - 9 publications with SJR
 - 6 publications indexed in Zentralblatt MATH and IEEEXplore

The scientific publications are published in specialized journals, periodical academic issues and issues of scientific papers of international conferences held in the country and abroad. The number of authors the applicant's scientific manuscripts are divided as follows:

- single-authored -3;
- in collaboration -27.

The following documents are also presented: a document for work experience, references and evidence for fulfillment of the minimum requirements, list of publications from the competition for Senior Assistant Professor, list of publications from PhD procedure, abstracts of the publications, and copies of scientific papers.

Senior Assistant Professor Dr. Peter Mladenov Vassilev has presented information for 12 citations by 1 scientific publication (Indicator D).

SCOPUS author citation report for the author contains information about 51 articles cited 210 (Excluding self citations of all authors: 126) with an h-index of 8 (Excluding self citations: 7).

3. General characteristics of the scientific and scientific-applied activities of the candidate

Table 1 contains information for the accomplishment of the basic indicators according to the Unified National Requirements, in compliance with the Regulation of the conditions of occupancy of an academic position in The Institute of Biophysics and Biomedical Engineering at the Bulgarian Academy of Sciences, defining the requirements of academic position "Associate Professor" in Professional field: 4.6. "Informatics and Computer Science".

Table 1 Report of the accomplishment of the basic indicators according to the Unified National Requirements and the Specific requirements of *BPhBME-BAS*

<i>Group of indicators</i>	<i>Minimal number of points IBPhBME-BAS</i>	<i>Points of the candidate IBPhBME-BAS</i>	<i>Minimal number of points NACID</i>	<i>Points of the candidate NACID</i>
<i>A</i>	50	50	50	50
<i>B</i>	-	-	-	-
<i>V</i>	100	102	100	306
<i>G</i>	220	227	200	681
<i>D</i>	60	72	50	96
<i>E</i>	-	-	-	-
<i>Total:</i>	430	451	400	1133

I accept the contributions, presented by Senior Assistant Professor Dr. Peter Mladenov Vassilev as follows:

Scientific:

1. Extending the theory of Index Matrices by two level-operators;
2. Extending the theory of Intuitionistic Fuzzy Sets by new distances, operators and orderings;

3. Categorization of a large part of the existing extensions of the fuzzy sets and establishing their connection with the IFS;
4. Extending the theory of the Intercriteria Analysis by including new algorithm for calculating the similarity score between the criteria.

Scientific-applied:

1. Formal description of the necessary algorithm for new software for supporting the clinicians' decision making when working with patients on mechanical ventilation.
2. Discovery of nonlinear relationships between criteria in order to reduce the dimensionality of the space in practical tasks from different fields;
3. Discovering the relationships between the criteria for decision making in different scientific fields.

I do not have critical remarks and I recommend that Senior Assistant Professor Dr. Peter Mladenov Vassilev continue to conduct research and publish the results in a specialized books and textbooks.

My impressions of Senior Assistant Professor Dr. Peter Mladenov Vassilev are very good. I can describe him as an extremely hard-working and purposeful person.

4. Conclusion

I consider that the candidate meets the requirements for “Associate Profesor” of the Institute of Biophysics and Biomedical Engineering at the Bulgarian Academy of Sciences. On the basis of familiarization with the submitted by the candidate materials on the competition, I propose Senior Assistant Professor Dr. Peter Mladenov Vassilev to be elected for acquiring the academic position “Associate Professor” in the Professional field: 4.6. “Informatics and Computer Science”, Scientific specialty “Informatics”.

30.06.2021
Burgas, Bulgaria

Signature:
(Assoc. Prof. Veselina Bureva, PhD)