

REVIEW

to occupy the academic position:

| | |
|-----------------------|---|
| "Professor" | |
| "Associate Professor" | X |
| | one of the academic positions indicated shall be marked with the sign "X" |

Candidates to occupy the position:

| | | | | | | |
|---|-------------------|-------------------|---------|-------------|-----------|--|
| 1 | Senior assistant | PhD | Dimitar | Borisov | Borisov | UCTM, Department of Engineering Ecology |
| № | academic position | scientific degree | name | middle name | last name | workplace |

Scientific area:

| | |
|------|--------------------|
| 5 | Technical sciences |
| code | name |

Professional area:

| | |
|------|---------------------|
| 5.13 | General engineering |
| code | name |

Scientific specialty:

| |
|---|
| Environmental protection technologies and systems |
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The competition has been announced:

| | | | |
|----------------|-------------|---------------------------------|--|
| 104 | 05.12.2025r | Engineering ecology | Faculty of Chemical and Systems Engineering |
| in SG issue | date | for the needs of the Department | Faculty |

The review was written by:

| | | | | | |
|----------------------|----------------------|----------|-------------|-----------|--|
| Prof. | PhD | Dobromir | Ivanov | Yordanov | Burgas state university "Prof. Dr. Assen Zlatarov" |
| academic position | scientific degree | name | middle name | last name | workplace |

1. Review for the candidate:

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|-------------------|-------------------|---------|-------------|-----------|
| Senior assistant | PhD | Dimitar | Borisov | Borisov |
| academic position | scientific degree | name | middle name | last name |

1.1. Completion of the provided documents:

| | | |
|--|----------|---|
| A) The competition documents are in full compliance with the Regulations | 3 points | X |
|--|----------|---|

| | | |
|--|----------|--|
| B) The documents are complete but do not fully comply with the requirements of the Regulations | 2 points | |
| C) The documents are not completed in accordance with the requirements of the Regulations | 0 points | |
| | | one of the answers given is marked with the sign "X" |

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| Missing documents and violated requirements must be described if response C is marked. |
| |

1.2. Meeting the minimum requirements under the Regulations:

| | | |
|--|-----------|--|
| A) The candidate meets the minimum requirements | 20 points | X |
| B) The candidate doesn't meet the minimum requirements | 0 points | |
| | | one of the answers given is marked with the sign "X" |

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| It must be filled in if answer B is marked. The publication activity of the candidate is analyzed. The response of the results achieved (quoted) is analyzed. |
| The candidate Dimitar Borisov participates in the competition with a monograph (100 points), articles on indicators 7 and 8 (358 points) and presented citations of his scientific works (60 points). |

1.3. Relevance of scientific and / or applied research:

| | | |
|---|----------|--|
| A) The research is relevant. Part of the research is pioneering (no results are known on the topic by other authors) | 7 points | |
| B) Research is relevant. Results from other authors are known for each of the topics and / or applications studied. | 5 points | X |
| C) Most of the research is relevant, but also some results are presented that have no scientific and / or applied value | 3 points | |
| D) The smaller part of the research is relevant | 2 points | |
| E) Research is not relevant | 0 points | |
| | | one of the answers given is marked with the sign "X" |

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| The evaluation of the relevance of the research must be substantiated. |
| The scientific research of the candidate Dimitar Borisov is current and is divided into the following areas - optimization of technological objects and systems, multi-criteria optimization and optimal decision-making in environmental protection, application of neural networks and deep learning in environmental protection and energy efficiency and sustainable development. The research includes applied developments based on existing research by other authors, as the candidate contributes to the development of scientific knowledge in the field with his own ideas and new models. |

1.4. Knowledge of the problems subject of research:

| | | |
|---|----------|--|
| A) The candidate knows in detail the achievements of other authors on the researched topics and/or applications | 6 points | X |
| B) The candidate is partially familiar with the achieved results on the researched topics and / or applications | 4 points | |
| C) The candidate has no prior knowledge of the status of the researched problems | 0 points | |
| | | one of the answers given is marked with the sign "X" |

The evaluation must be substantiated if answer C is marked.

The candidate's scientific research builds on the established knowledge in the field by other authors, which demonstrates his competence in the topic of the competition.

1.5. Type of research:

| | | |
|---|----------|--|
| A) Theoretical | 4 points | |
| B) Applied | 4 points | X |
| C) Theoretical with application elements | 4 points | |
| D) It does not correspond to the level specified in the Act for the Development of the Academic Staff in the Republic of Bulgaria and the Regulations | 0 points | |
| | | one of the answers given is marked with the sign "X" |

The level of research must be substantiated if answer D is marked.

The candidate's scientific research is of a scientific-applied nature and allows for the enrichment of knowledge in the field of the competition.

1.6. Objectives of the research:

| | | |
|---|----------|--|
| A) Realistic and of scientific and / or applied interest | 8 points | X |
| B) Realistic, but not of scientific and / or applied interest | 4 points | |
| C) Unattainable (unrealistic) | 0 points | |
| | | one of the answers given is marked with the sign "X" |

Objectives must be specified. The type of the set objectives must be justified.

The goals of the candidate's scientific research are aimed at the practical application of scientific knowledge to solve specific problems related to the implementation of new methods for searching for solutions in the field of optimization of technological objects and systems, and making optimal decisions in environmental protection.

1.7. Methods of research:

| | | |
|---|----------|--|
| A) Adequate to research and set scientific objectives and /or applications | 8 points | X |
| B) Partially appropriate, enabling part of the scientific objectives and / or applications to be achieved | 4 points | |
| C) Inappropriate methods | 0 points | |
| | | one of the answers given is marked with the sign "X" |

Methods must be specified. The type of methods used is justified.

The research methods in the publications of candidate Dimitar Borisov ensure the collection, processing, and analysis of data to establish facts, dependencies, and patterns, guaranteeing objectivity and reliability of the results obtained through valid tools.

1.8. Candidate research contributions:

| | | |
|--|-----------|--|
| A) With lasting scientific and / or applied response, they form the basis for new research and applications | 20 points | X |
| B) They are of significant scientific and / or applied interest, complete and / or summarize previous research | 16 points | |
| C) They are of scientific and / or applied interest | 12 points | |
| D) Lack of significant contributions | 8 points | |
| E) Lack of contributions | 0 points | |
| | | one of the answers given is marked with the sign "X" |

Contributions must be specified. The type of results achieved must be justified.

The contributions of candidate Dimitar Borisov are of a scientific and scientifically applied nature and are in the following areas - optimization of technological objects and systems, multi-criteria optimization, and optimal decision-making in environmental protection, application of neural networks and deep learning in environmental protection and energy efficiency and sustainable development. The results achieved are applicable and offer new and hybrid algorithms that improve the accuracy of predictions compared to existing models. The methodology used is correct, the data samples are representative, and the statistical methods for testing the hypotheses are applied correctly. The results have direct application in the field of optimization of technological objects and systems, and making optimal decisions in environmental protection.

1.9. Participation of the candidate in the achievement of the presented results:

| | | |
|--|----------|---|
| A) The candidate has at least an equal participation in the submitted papers | 8 points | X |
| B) The candidate has at least an equal participation in most of the submitted papers | 7 points | |

| | | |
|--|----------|--|
| C) The candidate has a secondary participation in most of the submitted papers | 4 points | |
| D) The candidate participation is unnoticeable | 0 points | |
| | | one of the answers given is marked with the sign "X" |

Critical notes must be provided if one of the items C or D is marked.

The candidate Dimitar Borisov has submitted a monograph and 19 scientific publications for the competition, in 13 of which he is an independent author.

1.10. Pedagogical activity:

| | | |
|--|----------|--|
| A) The candidate has effective and sufficient pedagogical activity at the university. The textbooks issued are modern and useful (they meet the requirements of the Regulations). The work with undergraduate and doctoral students is at a high professional level. | 8 points | X |
| B) The candidate has sufficient pedagogical activity at the university. The textbooks issued satisfy the requirements of the Regulations. | 6 points | |
| C) The pedagogical activity and / or textbooks issued are insufficient (do not meet the requirements of the Regulations) | 0 points | |
| | | one of the answers given is marked with the sign "X" |

Critical notes must be provided if one of the items B or C is marked.

The candidate Dimitar Borisov leads seven lecture courses and has presented a textbook for seminar exercises on Ecological Audit, Optimal Solutions, and Data Processing in Environmental Protection, of which he is an independent author. The textbook is modern and useful for the training of students in the specialties "Engineering Ecology", "Ecology and Environmental Protection" and "Chemical Engineering", in the Bachelor's and Master's Degrees.

1.11. Critical notes:

| | | |
|---|----------|--|
| A) Lack of critical notes | 8 points | X |
| B) Critical notes of a technical nature | 7 points | |
| C) Critical notes that would partially improve the results achieved in a small part of the research | 5 points | |
| D) Critical notes that would partially improve the results achieved in most of the research | 3 points | |
| E) Significant critical notes | 0 points | |
| | | one of the answers given is marked with the sign "X" |

Critical notes must be provided if one of the answers C, D or E is marked.

I have no critical comments on the materials presented by the candidate.

1.12. Conclusion

| | | |
|--|---|--|
| A) The evaluation of the candidate's activity is POSITIVE | This evaluation is assigned to a total number of at least 65 points | X |
| B) The evaluation of the candidate's activity is NEGATIVE | This evaluation is assigned to a total number below 65 points | |
| | | one of the answers given is marked with the sign "X" |

To be filled in if requested by the reviewer

Everything said so far gives me reason to give a positive opinion on the documents with which Senior Asst. Prof. Dr. Dimitar Borisov Borisov participated in the competition for "Associate Professor" and to recommend, both to the esteemed members of the Scientific Jury and to the esteemed members of the Faculty Council of the Faculty of Chemical and Systems Engineering, to vote positively for the appointment of Senior Asst. Prof. Dr. Dimitar Borisov Borisov to the academic position of "Associate Professor" in the field of higher education 5. Technical Sciences, professional field 5.13. "General Engineering", scientific specialty "Environmental Protection Technologies and Systems" by Senior Asst. Prof. Dr. Dimitar Borisov Borisov.

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|-------------------|----------------------------|-----------|
| 15.03.2026 | The review was written by: | |
| date | | signature |