

**UNIVERSITY OF ECONOMICS - VARNA**

CERTIFIED MANAGEMENT SYSTEM ISO 9001: 2015

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OPINION

on the competition for the academic position of "Associate Professor"
announced by the University of Economics - Varna

1. General Information

Prepared by: Prof. Tanka Vasileva Milkova, PhD, lecturer in the Department of "Statistics and Applied Mathematics" at the UE-Varna, Professor in Professional Field 3.8. Economics.

Basis for preparing the opinion: This opinion is prepared based on Order of the Rector of the UE-Varna No. RD-06-14/19.01.2026 regarding the composition of the Scientific Jury for the competition for the academic position of "Associate Professor" and a decision of the Scientific Jury taken at the first meeting on 21.01.2026.

2. Information about the Competition

The competition for the academic position of "Associate Professor" in the field of higher education 3. Social, Economic and Legal Sciences, professional field 3.8. "Economics", scientific specialty "Quantitative Methods in Economics (Risk Management)" has been announced for the needs of the Department of Statistics and Applied Mathematics by the Faculty of Informatics at the University of Economics – Varna and has been announced in State Gazette No. 98 / 18.11.2025.

3. Candidate in the Competition

The only candidate in the competition is Chief Assist. Prof. Velina Georgieva Yordanova, PhD, lecturer at the Department of Statistics and Applied Mathematics at the University of Economics – Varna since 2008.

The candidate fulfills and even exceeds the minimum national requirements for occupying the academic position of "Associate Professor" in the professional field of the announced competition. It significantly exceeds the additional quantitative requirements of the University of Economics – Varna. Meets the requirements in Art. 101 of the Regulations for the Development of the Academic Staff of the University.



4. Information about the Candidate

Velina Yordanova has obtained a Bachelor's degree in Mathematics and Informatics and a Master's degree in Informatics from the University of Economics - Varna. Her teaching career began in 2007 as a part-time lecturer at the Department of Applied Mathematics (now Statistics and Applied Mathematics) at the University of Economics - Varna, and since 2008, after a successful competition, she has been a lecturer on a basic employment contract at the university.

The active research activity of the candidate in the competition started in 2011 and in the period 2011-2014 she was studying for a PhD at the University of Economics - Varna. In 2014 she acquired the educational and scientific degree of "Doctor" in the scientific specialty "Economics and Management (Construction)" (diploma No 034 / 17.02.2014) with the topic of the dissertation "Opportunities for optimization of the production and economic activity of construction and installation enterprises".

Chief Assist. Prof. Velina Yordanova, PhD continues to work in this field and most of her publications are related to mathematical modeling and application of quantitative methods in construction enterprise management and risk management. The publications of the candidate fully correspond to the scientific specialty of the competition.

I would also like to express my wonderful personal impressions and satisfaction from my joint work with Chief Assist. Prof. Velina Yordanova, PhD, whom I know as a student at the university. We have been working together for more than 15 years and during this period she has always been very active in the activities of the department and the university. At the moment, she is the Deputy Head of the Department and as such she has always indicated the necessary assistance and has performed all the tasks assigned to her qualitatively and in a timely manner.

5. Description of Scientific Works

For his participation in the competition, Chief Assist. Prof. Velina Yordanova, PhD presents the following scientific papers:

- one single-authored monograph entitled "Quantitative Methods of Risk Management in the Construction Enterprise", published in a specialized scientific journal – monographic library "Prof. Tsani Kalyandzhiev" at the Science and Economics Publishing House at the University of Economics - Varna. It was reviewed by two habilitated persons and discussed at a meeting of the primary unit. The topic of the monographic work fully corresponds to the scientific specialty of the competition;



- one monograph co-authored on the topic "Optimization of Economic Processes in the Production and Transport System of the Enterprise";
- one single-authored study entitled "Optimal Management of Investment Portfolios in Complete Uncertainty";
- 17 articles;
- 17 reports.

Two of the publications submitted for participation in the competition are in the Web of Science database, and the rest are included in the National Reference List of Contemporary Bulgarian Scientific Journals with scientific peer review. There is a balance between single-authored publications and co-authored publications. It shows that Chief Assist. Prof. Velina Yordanova, PhD can develop single scientific research, and also knows how to work in a team. The publications contain scientific and applied scientific contributions and explore problems that can be related to the scientific direction of the competition. All publications are developed in a high scientific style, logically constructed and at the same time written understandably and accessible to readers. I believe that the scientific developments of the candidate in the competition can be evaluated very highly in terms of quality.

6. Identification of Contributions

In the publications of Chief Assist. Prof. Velina Yordanova, PhD identifies significant original scientific and applied contributions in the fields of her scientific interests. I accept and fully confirm the contributions presented by her, which she divides into two areas – "Quantitative Methods in Economics" and "Teaching in Mathematics, Mathematical Competitions and Olympiads". The most significant contributions from the first group are related to the design, modification and testing of various risk management models, which directly corresponds to the scientific specialty of the competition. No less important are the contributions from the second group, as they are directly related to the teaching activity and achievements of the candidate in the competition.

Chief Assist. Prof. Velina Yordanova, PhD has a sufficient number of citations, and only 18 of them are described in detail in the reference for citations. Information about h-index 2 in Google Scholar and h-index 1 in Web of Science is provided.



7. Participation in Scientific Projects and Scientific Forums

The publication activity of Chief Assist. Prof. Velina Yordanova, PhD in the part "conference proceeding" testifies to her active participation in a number of scientific forums.

Chief Assist. Prof. Velina Yordanova, PhD has participated in six scientific teams of projects for applied research. All projects are related to the application of mathematical methods and models in economics and have been successfully finalized.

In addition, she actively participates in the organization and conduct of a number of forums of scientific and applied nature. She is a member of the organizing committees of the international scientific and practical conferences "The role of fundamental programs in higher education", organized by the Department of Statistics and Applied Mathematics in 2022 and 2024, "Financial Mathematics Olympiad for Students" funded by the Municipality of Varna from 2022 until now.

In view of what has been said, I highly appreciate the project activity of Chief Assist. Prof. Velina Yordanova, PhD.

8. Teaching Work

Chief Assist. Prof. Velina Yordanova, PhD has over 18 years of teaching experience, and over the years she has taught classes in various fundamental and applied disciplines. He is a co-author of the curricula of many of these disciplines. In my opinion, it is no coincidence that her teaching work has always been appreciated very highly by students. My personal impressions are that she is an extremely experienced and dedicated university lecturer. For her participation in the competition, she submitted entries in one textbook and in four teaching aids. All of them are developed with the necessary mathematical accuracy and at the same time contain the necessary examples and applications, making them accessible to students.

9. Plagiarism

I have not found plagiarism in the scientific works of Chief Assist. Prof. Velina Yordanova, PhD. All references to foreign scientific works are correct and the publications are her own work.

10. Questions and Critical Remarks

I have no questions and critical remarks to the candidate. I recommend that she continue to deepen her research work in her chosen scientific field.



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11. Conclusion


My acquaintance with the documents provided and my personal impressions of working with Chief Assist. Prof. Velina Yordanova, PhD have grounds to assert that she has all the necessary achievements in the scientific, educational and administrative work of the university, which are necessary for occupying the academic position of Associate Professor.

On the basis of the established overfulfillment of the Minimum National Requirements for Occupying the Academic Position of Associate Professor and the additional quantitative requirements for occupying this position at the University of Economics - Varna, I declare my positive opinion and propose to the esteemed members of the Scientific Jury to vote FOR occupying the academic position of Associate Professor by the candidate in the competition Chief Assist. Prof. Velina Georgieva Yordanova, PhD.

23.02.2026

Varna

Заличена информация съгласно
ЗЗЛД и регламент (ЕС) 2016/ 679

Prepared by:

Prof. Dr. Tanka Milkova

**UNIVERSITY OF ECONOMICS – VARNA**

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Statement of opinion

about a contest for taking the academic position “Associate Professor”
announced by the University of Economics – Varna

1. General Information

Prepared by: Assoc. Prof. Yordan Rusanov Petkov, PhD, Associate Professor in Professional Field 3.7 Administration and Management, Scientific Specialty “Quantitative Methods in Management (Human Resource Management)”, lecturer at the Department of Statistics and Applied Mathematics in the University of Economics – Varna.

Grounds for preparing the statement of opinion: The statement is prepared based on Order No. RD-06-14/19.01.2026 of the Rector of the University of Economics – Varna appointing a Scientific Jury for a contest for taking the academic position “Associate Professor”, and the decision taken at the first meeting of the Scientific Jury held on 21.01.2026. It is made in compliance with Art. 4, para. 8 of the ADASRB, Art. 2, para. 8 of the Regulations for its implementation, and Art. 106 of the Regulations for Development of the Academic Staff in the University of Economics – Varna.

2. Information on the contest

The contest for taking the academic position “Associate Professor” in Professional Field 3.8 Economics, Scientific Specialty “Quantitative Methods in Economics (Risk Management)” was announced in State Gazette issue 98/18.11.2025 for the needs of the Department of “Statistics and Applied Mathematics” in the University of Economics – Varna.

3. Candidate in the contest

The only candidate who submitted documents for participation in the contest is Chief Assist. Prof. Velina Georgieva Yordanova, PhD, a full-time lecturer at the Department of “Statistics and Applied Mathematics” in the University of Economics – Varna.

The candidate meets the requirements specified in Art. 101 of the Regulations for Development of the Academic Staff in the University of Economics – Varna and fulfills the minimum national requirements for the academic position of “Associate Professor” (Art. 2b, paras. 2 and 3 of ADASRB) and the additional quantitative requirements established by the University of Economics – Varna (Art. 2b, para. 5 of ADASRB).

4. Information about the Candidate

Velina Yordanova obtained a Bachelor’s degree in Mathematics and Informatics in 2007 and a Master’s degree in Informatics in 2008 from the University of Economics – Varna. From 2011 to 2014 she was a doctoral student at the Department of “Construction Economics” in the University of Economics – Varna and successfully defended her



dissertation entitled “Opportunities for Optimizing the Production and Economic Activity of Construction and Installation Enterprises”, obtaining a PhD degree in Economics and Management (Construction) - diploma No. 034/17.02.2014.

Her professional academic career began in 2007 as a part-time lecturer at the Department of “Mathematical Sciences” (currently “Statistics and Applied Mathematics”) in the University of Economics – Varna. Since 2008, she has been employed as a full-time lecturer, successively holding the positions of Assistant and Chief Assistant Professor.

5. Description of the scientific works

The research interests of Chief Assist. Prof. Velina Yordanova are primarily related to the application of mathematical methods for modelling economic processes, particularly in the context of optimal management of construction enterprises. In addition, her research also addresses issues related to mathematics education and mathematical competitions.

To date, she is author or co-author of 52 scientific publications, including 1 textbook and 6 teaching manuals.

For the purposes of the present contest, the candidate has submitted 42 scientific works, including 1 textbook and 4 teaching manuals, with a total personal contribution exceeding 700 pages.

The publications are distributed as follows:

- Single-author monographs – 1;
- Co-authored monographs – 1;
- Studies – 1 (single-author);
- Scientific articles – 17: 8 single-author and 9 co-authored; 2 published in journals indexed in Web of Science and the remaining articles published in peer-reviewed journals included in the National Reference List of Contemporary Bulgarian Scientific Publications of NACID;
- Conference papers – 17: 11 single-author and 6 co-authored; published in proceedings of international scientific conferences, included in the National Reference List of Contemporary Bulgarian Scientific Publications of NACID.

A central place among the submitted publications is occupied by the single-author monograph entitled “Quantitative Methods for Risk Management in the Construction Enterprise” (154 pages). The monograph was developed within the framework of Research Project No. 63/2023, entitled “Quantitative Methods in the Management of the Construction Enterprise”. The work fully corresponds to the scientific specialty of the contest. It has been discussed at a meeting of the Department of “Statistics and Applied Mathematics” and has been reviewed by two reviewers before being published in the “Prof. Tsani Kalyandzhiev” Monograph Series of the publishing house Science and Economics, University of Economics – Varna. The monograph focuses on the application of quantitative models and methods for optimal risk management in construction enterprises. The author proposes new approaches and adaptations of existing models aimed at achieving optimal production programmes in the presence of risk and uncertainty. A significant contribution is the development of



approaches for investment projects assessment under conditions of partial or complete uncertainty, as well as methods for constructing optimal investment portfolios. The proposed theoretical models are illustrated through numerical examples and supported by an analysis of the obtained results. The study is conducted at a high scientific level, and the achieved theoretical and applied results correspond fully to the thematic scope of the announced contest.

Problems related to optimal risk management are also addressed in another study and several articles and conference papers.

Many of the remaining publications explore the application of quantitative methods in economics, employing a wide range of mathematical tools such as mathematical optimization, game theory, and financial mathematics.

A final group of publications addresses methodological issues in mathematics education and the preparation of students for mathematical competitions.

Overall, the submitted scientific works demonstrate the candidate's ability to conduct independent research as well as her capacity to collaborate effectively in research teams.

Regarding the publication activity, the candidate exceeds the minimum national requirements for the academic position of "Associate Professor" in Professional Field 3.8: Indicator group B – 100 points (required minimum: 100); Indicator group G – 308.32 points (required minimum: 200). She also exceeds the additional institutional requirements of the University of Economics – Varna.

All declared points may therefore be recognized.

6. Identified scientific contributions

The report on scientific contributions submitted by the candidate accurately reflects the achieved results, which I fully accept. A total of 19 main contributions have been identified and classified into two groups: quantitative methods in economics and Mathematics Education and Mathematical Competitions.

The first group includes 14 contributions presented in 29 publications, which can be summarized as follows:

- theoretical contributions concerning the specific features of mathematical modelling in the management of construction enterprises under conditions of risk and uncertainty
- development of original models and adaptations of existing methods for optimizing various economic activities of enterprises
- development of a methodology for optimal management of investment risk under conditions of partial and complete uncertainty (presented in the main monograph)
- theoretical results related to specific problems in optimization and game theory

The second group includes 5 contributions presented in 14 publications, addressing methodological issues in mathematics education and preparation for mathematical competitions.



The candidate's publications have received recognition and citations. According to the submitted information: h-index: 2 in Google Scholar; h-index: 1 in Web of Science.

A total of 17 citations are reported: 5 citations in publications indexed in international databases; 7 citations in peer-reviewed monographs and edited volumes; 5 citations in other peer-reviewed publications. The detailed bibliographic information provided confirms their validity. The candidate has obtained 170 points in indicator group D, which significantly exceeds the required minimum of 50 points.

7. Participation in research projects and scientific events

Chief Assist. Prof. Velina Yordanova has participated in six research projects funded by the state budget, all of which have been successfully completed and resulted in monographic publications. She has collaborated with doctoral students in these projects, and the project topics are directly related to the application of quantitative methods in economics and management. The results of the most recent project – “Quantitative Methods in the Management of the Construction Enterprise” – form the basis of the habilitation monograph submitted for the contest.

The candidate has also presented 17 conference papers at international scientific and scientific-practical conferences, published in peer-reviewed proceedings.

Additionally, she has participated in the organization of numerous scientific events and student initiatives.

Overall, I assess the candidate's participation in research projects and scientific forums as highly positive.

8. Teaching activities

Chief Assist. Prof. Velina Yordanova has nearly 20 years of experience as a university lecturer, which demonstrates a well-established level of professionalism. During this period, she has delivered lectures and seminars in numerous fundamental and applied mathematical disciplines and has contributed to the development of course curricula for many of them. Student appraisal of her teaching have consistently been very close to the maximum possible score.

She is also the co-author of seven textbooks and teaching manuals (five declared for the contest) intended for students at the Bachelor's and Master's levels. The materials she has developed are characterized by clarity, accessibility, and mathematical precision, as well as by the inclusion of numerous practical examples illustrating the application of theoretical concepts.

Having worked together for more than 20 years, I have always held in high regard her professionalism and dedication to teaching. Her pedagogical experience and skills fully correspond to the requirements of the academic position of “Associate Professor”.

9. Plagiarism



I have not identified any evidence of plagiarism in the scientific works of Chief Assist. Prof. Velina Yordanova. References to foreign scientific works were made correctly. I believe that the scientific papers submitted for participation in the contest are the candidate's own work.

10. Questions and critical notes

I have no critical notes regarding the submitted materials.

I would recommend that the candidate continue her active research work and further develop her studies on the application of quantitative methods and mathematical modelling in economics.

11. Conclusion

The scientific output and teaching activity of the candidate fully comply with the requirements of the ADASRB, its implementing regulations, and the Regulations for Development of the Academic Staff in the University of Economics – Varna.

The submitted scientific works contain a sufficient number of significant scientific and applied contributions relevant to both theory and practice.

On this basis, I express my clear and positive opinion and recommend that the respected members of the Scientific Jury vote in favour of awarding the academic position of “Associate Professor” in Professional Field 3.8 Economics, Scientific Specialty “Quantitative Methods in Economics (Risk Management)” to Chief Assist. Prof. Velina Georgieva Yordanova, PhD.

09 March 2026

Varna

Signature:

Заличена информация съгласно
ЗЗЛД и регламент (ЕС) 2016/ 679

(Assoc. Prof. Yordan Petkov)



Вх. № ПД-0-414/10.03.2026г.

OPINION

on competition for occupying the academic position of "Associate Professor",
announced by the University of Economics - Varna

• General Information

This Opinion is drawn up by Assoc. Prof. Dr Radan Vasilev Miryanov, Associate Professor in Professional Field 3.8. *Economics*, scientific specialty *Economics and Management (Quantitative Methods in Logistics)*, in the Department of *Statistics and Applied Mathematics* at the University of Economics - Varna.

The Opinion is drawn up on the basis of a Decision of the first sitting of the Scientific Examining Jury, held on 21.01.2026, in accordance with Art. 4, Para. 8 of the *LDASRB*, Art. 2, Para. 8 of the *Implementing Regulation of the LDASRB* and Art. 106 of the *Regulations on the Development of Academic Staff at UE-Varna*. The members of the Scientific Examining Jury have been appointed by Order of the Rector of the University of Economics - Varna No ПД-06-14/19.01.2026.

• Information about the Competition

The Competition for occupying the academic position of "Associate Professor" in area of higher education 3. *Social, Economic and Legal Sciences*, professional field 3.8 *Economics*, scientific specialty *Quantitative Methods in Economics (Risk Management)* for the needs of the Department of *Statistics and Applied Mathematics* at the University of Economics - Varna is announced in SG iss. No. 98/18.11.2025.

• Candidate in the Competition

There is 1 (one) candidate in the competition - Chief Assist. Prof. Dr Velina Georgieva Yordanova, lecturer employed under a primary employment contract at the University of Economics – Varna, Department of *Statistics and Applied Mathematics*.

An examination of the presented documents for participation in the competition shows that the candidate fulfils the minimum national requirements for AP "Associate Professor" in area of higher education 3. *Social, Economic and Legal Sciences*, under Art. 2b, Para. 2 and 3 of the *LDASRB*. She also fulfils the additional quantitative requirements of UE - Varna, under article Art. 2b, Para. 5 of the *LDASRB*. The candidate meets the requirements in Art. 101 of the *Regulations on the Development of Academic Staff at UE-Varna (RDAS)*.

• Information about the Candidate (personal profile):

The only Candidate in the Competition, Chief Assist. Prof. Dr Velina Yordanova, has the ESD of "Doctor" in the scientific specialty *Economics and Management (construction)* (diploma No 034 / 17.02.2014), acquired after the successful defense of a dissertation



entitled *Possibilities for Optimizing the Production and Economic Activity of Construction-Assembly Enterprises* in January 2014.

The candidate has graduated in the programmes of *Mathematics and Informatics* and *Informatics* at the University of Economics – Varna with a bachelor's and master's degree respectively. During the period 2007-2008 she is a part-time, and since 2008 - a full-time Assistant Professor, and after that Chief Assistant Professor in the Department of *Statistics and Applied Mathematics* at the same University. The scientific interests of the candidate are connected mainly with the application of mathematical methods for modelling economic processes, including those in the management of the construction enterprise, as well as with the issues of training in mathematics and mathematics competitions. In those areas - up till now - she is the author or co-author of 52 scientific publications, 1 manual and 6 handbooks.

• Description of Research Works

The research output with which Chief Assist. Prof. Dr Velina Yordanova takes part in the competition consists of 37 scientific publications (monographs, studies, articles, reports) and 5 methodological publications (manuals and handbooks) with a volume of personal contribution totalling a little over 770 pages, distributed as follows:

No	Type of publication	Written independently		As a co-author		Total	
		Number	pgs.	Number	pgs.	Number	pgs.
1.	Monographs	1	154	1	40	2	194
2.	Studies	1	23	-	-	1	23
3.	Scientific articles	8	75	9	25.74	17	100.74
4.	Scientific papers	11	71	6	23	17	94
5.	Manuals and handbooks	-	-	5	359	5	359
	Total:	21	323	21	447.74	42	770.74

Two of the articles are published in a journal indexed in Web of Science. The remaining articles and the papers are in journals included in *The National Reference List of Contemporary Bulgarian Scientific Publications with Scientific Review* of the National Centre for Information and Documentation (NACID).

The habilitation work of the candidate entitled *Quantitative Methods for Managing Risk in The Construction Enterprise* is developed in connection with the implementation of scientific project NPI No 63/2023 on the theme *Quantitative Methods in the Management of The Construction Enterprise* and fully corresponds to the scientific specialty of this competition. It has been reviewed by two habilitated individuals and is published under No 109 in monographic library *Prof. Tsani Kalyandzhiev* with Publishing House *Science and Economics*, University of Economics - Varna. The monograph presents a study of the possibilities for using various quantitative methods and models in the planning and realization of core activities (particularly production and investment activities) in the



construction enterprise, in order to achieve optimal results at minimum risk. In this regard the author proposes original as well as adapted existing mathematical models for composing an optimal production schedule under uncertainty and risk, and also puts forward methodologies for selecting investments under conditions of uncertainty. The propounded theoretical formulations are accompanied by numerical approbation and analysis of the possibilities for and the limitations of their practical application. The results of the study, in my opinion, are of interest for both the theory, and the practice of risk management.

The issues connected with effective risk management are also the object of inquiry in an independently written study, several independently written articles and papers.

Another part of Chief Assist. Prof. Dr Velina Yordanova's publications present models of processes and systems based on a broad set of mathematical methods: on the problem of mathematical optimization, game theory, financial mathematics, etc.

The remaining publications in the competition deal with issues of the training in mathematics in secondary schools and higher education institutions or are devoted to mathematics competitions.

I dare say the publications presented in the competition are on a high level. They are in line with scientific rigour and the exposition is logically sound and succinct.

In compliance with the quantitative requirements for occupying the academic position of "Associate Professor" in professional field 3.8. *Economics*, laid down in the *Regulations on the Development of Academic Staff at the University of Economics - Varna*, the candidate Velina Yordanova has 140 points in the criterion "scientific papers" (the minimum number required being 30 points) and 148.32 points in the criterion "scientific articles and studies" (the minimum number required being 80 points). I believe all those can be recognized.

As regards publication activity, the candidate meets the minimum national requirements for occupying the academic position of "Associate Professor", by declaring 1 independently written monographic work (100 points, the required minimum being 100 points), 17 articles, 17 papers, 1 study and 1 chapter of a joint monograph (308.32 points, the required minimum being 200 points).

• Identification of Contributions

In her statement of scientific and applied research contributions, Chief Assist. Prof. Dr Velina Yordanova has classified 19 main contributory points, divided in two areas, in accordance with her scientific interests. An examination of her academic production confirms their authenticity. I will take the liberty to draw those that are more important among them:

- developed further and enriched is the theory of mathematical modelling, connected with its peculiarities and its application in the management of the construction enterprise under conditions of risk and uncertainty;



- mathematical models and methods for optimizing production, transportation and investment activities are developed;
- new as well as modified production and transport single-product and multi-product models are proposed, with the help of which an optimization of the economic processes in the production and transport system of the enterprise is achieved;
- theoretical results in solving certain particular problems in the area of multi-criteria optimization and game theory are achieved;
- certain methodological results connected with the training in mathematics and the preparation for mathematics competitions are achieved.

For her participation in the competition Chief Assist. Prof. Dr Velina Yordanova has declared 18 citations, five of which are in journals indexed in Web of Science. The presented citations meet the normative requirements and I believe that the 170 points obtained in this group of criteria (the minimum number of points required being 50 points) should be recognized.

• Participation in Scientific Projects and Scientific Forums

The participation of Chief Assist. Prof. Dr Velina Yordanova in scientific projects and scientific forums can be assessed as active.

In the autobiographical statement she specifies participation in 6 national research projects (included also in the Bulgarian Current Research Information System). The themes of the projects are connected with the application of mathematical methods and models, and her habilitation work is in one of them: the NPI No 63/2023.

The bibliographical description of Chief Assist. Prof. Dr Velina Yordanova's papers shows that they have all been presented at international scientific as well as scientific and practical conferences. In addition, she is a member of the organizing committees of 2 international scientific and practical conferences, organized by the department of *Statistics and Applied Mathematics*, 2 student scientific conferences at the University of Economics - Varna. She took part 4 times in organizing and conducting an *Olympiad in Financial Mathematics for University Students* under a project financed by the Municipality of Varna.

• Teaching Activity

Chief Assist. Prof. Dr Velina Yordanova has rich and long-standing experience as university lecturer at the University of Economics - Varna. She has given lectures and conducted seminars/tutorials in fundamental and applied mathematics subjects. Her teaching methods have always been highly appreciated by her colleagues and students.

For the present competition the candidate states participation in 1 manual and 4 handbooks, and the topics developed by her are characterized by a precise and



straightforward style and an emphasis on the practical applicability of the theoretical methods and models.

- **Plagiarism**

I have found no evidence of plagiarism or incorrect data in the works of the candidate. References to other peoples' research works are correctly stated, in conformity with the rules for citation.

- **Questions, Critical Remarks to the Candidate**

I have known Chief Assist. Prof. Dr Velina Yordanova for more than 20 years and I very much appreciate her research and teaching activity. There are no critical remarks I wish to direct at the candidate.

I would recommend to her, firstly, that she should actively continue doing research in the areas in which she has worked so far, and secondly, that she should work on the possibilities for realizing teaching staff mobility in Universities abroad.

- **Conclusion**

In view of everything described in the preceding paragraphs, I believe that the candidate meets all requirements for occupying the academic position of "Associate Professor", specified in the *LDASRB* and the *RDAS* of UE - Varna. I explicitly state my positive assessment and propose to the members of the scientific examining jury that Chief Assist. Prof. Dr Velina Georgieva Yordanova be elected "Associate Professor" in PF 3.8 *Economics*, scientific specialty *Quantitative Methods in Economics (Risk Management)*.

10.03.2026

Varna

Signature:

(Assoc. Prof. Dr Radan Miryanov)

Заличена информация съгласно
ЗЗЛД и регламент (ЕС) 2016/ 679



ИКОНОМИЧЕСКИ УНИВЕРСИТЕТ ВАРНА

В.х. № ПД20-367/04.03.2026г.

OPINION

on a competition for the academic position "Associate Professor",
announced by the University of Economics – Varna

1. General information

Prepared the opinion: Prof. PhD Svetlana Raycheva Dimitrakieva, TU-Varna, Department of Industrial Management.

Grounds for issuing the opinion on the competition: the opinion was prepared based on Order № ПД-06-14/19.01.2026 of the Rector of the University of Economics - Varna on the composition of the Scientific Jury for the competition for the academic position of "associate professor" and the decision of the Scientific Jury taken at its first meeting on January 21, 2026.

2. Contest details

The competition for the academic position "Associate Professor" has been announced under Area of higher education 3. "Social, economic, and legal sciences", professional field 3.8. "Economics", scientific specialty "Quantitative Methods in Economics (Risk Management)" was announced in State Gazette № 98/18.11.2025 for the needs of the Department of Statistics and Applied Mathematics, Faculty of Informatics at the University of Economics - Varna.

3. Contest candidate

The only candidate in the competition is Chief Assistant Professor PhD Velina Georgieva Yordanova, lecturer at the Department of Statistics and Applied Mathematics, Faculty of Informatics at the University of Economics - Varna.



Chief Assistant Professor PhD Velina Georgieva Yordanova has submitted documents and evidence of compliance with the requirements for the academic position of "associate professor" specified in Article 101 of the Regulations for the Development of Academic Staff at the University of Economics - Varna:

- holds a PhD degree;
- has held the academic position of "chief assistant professor" for at least two years;
- has presented a published monographic work;
- meets the minimum national requirements for the academic position of "associate professor" in accordance with Article 2b, paragraphs 2 and 3 of the Act for the Development of the Academic Staff in the Republic of Bulgaria;
- meets the requirements for holding the academic position of "associate professor" at the University of Economics - Varna on the basis of Article 2b, paragraph 5 of the Act for the Development of the Academic Staff in the Republic of Bulgaria;
- has submitted a declaration of originality of scientific works.

4. Candidate information

In 2007, Velina Yordanova obtained a bachelor's degree in Mathematics and Informatics, and in 2008, a master's degree in Informatics from the University of Economics - Varna. From 2011 to 2014, she was a doctoral student in individual study in the Department of Economics and Management of Construction (now Department of Business, Investment, Real Estate). In 2014, she obtained a doctoral degree in Economics and Management (Construction) after successfully defending her dissertation on "Opportunities to Optimize Production and Business Activities of Construction Enterprises".

Velina Yordanova's professional career began in 2007 as an adjunct lecturer in the Department of Applied Mathematics (now Statistics and Applied Mathematics). Since 2008, she has held the academic positions of "assistant professor" and "chief assistant professor" in the same department.



The main areas of scientific interest of Chief Assistant Professor Velina Yordanova, PhD, are related to mathematical modeling, quantitative methods in economics, risk management, financial mathematics, and mathematics education.

5. Description of scientific works

In the competition for the academic position of "associate professor," Chief Assistant Professor PhD Velina Georgieva Yordanova participated with 42 works:

№	Type of publication	Independent	Co-authored	Total
1.	Monographs	1	1	2
2.	Scientific studies	1	-	1
3.	Scientific articles	8	9	17
4.	Scientific papers	11	6	17
5.	Textbooks and teaching aids	-	5	5
6.	Other publications	-	-	-
	Total:	21	21	42

In the presented Report on the fulfillment of the minimum national requirements, Chief Assistant Professor PhD Velina Yordanova has included 37 publications, namely:

- independent monograph - 1;
- published chapter from a collective monograph - 1;
- study published in non-refereed peer-reviewed journals or in edited collective volumes - 1;
- articles and reports published in scientific publications, referenced and indexed in global scientific information databases (Scopus and WOS) - 2;
- articles and reports published in non-refereed peer-reviewed journals or in edited collective volumes - 32 (15 articles and 17 reports).

The fulfillment of the minimum national requirements for the individual indicators is as follows:



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Group of indicators	Minimum national requirements	Points declared by the applicant
A	50	50
B	100	100
C	200	308,32
D	50	170
Total	400	628,32

The fulfillment of the additional quantitative requirements of University of Economics - Varna is as follows:

Indicators	Points for the academic position "associate professor"	Points declared by the candidate
Scientific papers	30	140
Scientific articles and papers	80	148,32

A List of publications referenced and indexed in the world-renowned scientific information databases Scopus and/or Web of Science is presented, as well as publications in editions included in the national reference list maintained by NACID. In quantitative terms, the publications presented by Chief Assistant Professor PhD Velina Yordanova not only meet but also significantly exceed the required minimum values.

To participate in the competition, Chief Assistant Professor PhD Velina Yordanova presents an independent monographic work on the topic: "Quantitative methods for risk management in construction enterprise" with a volume of 154 pages. It was discussed at a meeting of the primary unit (Protocol № 7/28.04.2025 from a meeting of the Academic Council of the Department of Statistics and Applied Mathematics), reviewed by two habilitated persons, Prof. PhD Bistra Vasileva and Assoc. Prof. PhD Bozhidar Chaparov, and published in a specialized scientific publication, the Monographic Library "Prof. Tsani Kalyandzhiev."

The publications presented by Chief Assistant Professor PhD Velina Yordanova are of high quality from a linguistic and stylistic point of view. In terms of quantity, structure, and content, they meet the requirements of the Act for the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for



Implementing the Act for the Development of the Academic Staff in the Republic of Bulgaria, as well as Article 112, paragraph 2 of the Regulations for the Development of Academic Staff at the University of Economics - Varna.

6. Identification of contributions

The research work of Chief Assistant PhD Velina Yordanova identifies scientific and applied scientific contributions.

I accept the contributions presented in the Reference as real and significant. They are divided into two areas of her scientific interests: "Quantitative Methods in Economics" and "Mathematics Education, Mathematical Competitions, and Olympiads" and are the result of her consistent research and publication activity. They have enriched existing knowledge and further developed the methodology in the field of the competition.

The Reference on the citations found lists 18 citations. These earn the candidate 170 points, with a minimum requirement of 50 points. Additional information is provided on the h-index 2 in Google Scholar and h-index 1 in Web of Science.

7. Participation in scientific projects and scientific forums

Chief Assistant Professor PhD Velina Yordanova has participated in six research projects. All of them have been successfully completed and are in the areas of her scientific interests.

Chief Assistant Professor PhD Velina Yordanova is an active participant in the organization and conduct of a number of scientific and applied forums. She is a member of a project team for the organization and implementation of the "Financial Mathematics Olympiad for Students" at the University of Economics - Varna, funded by the Municipality of Varna from 2022 to the present. She is a member of the organizing committees of the international scientific and practical conferences "Fundamental Training in Higher Education" (2022 and 2024). Chief Assistant



Professor PhD Velina Yordanova is a member of the "European Kangaroo" association.

All these activities demonstrate her scientific competence and expertise.

8. Teaching work

Chief Assistant Professor PhD Velina Yordanova has eighteen years of teaching experience and is actively involved in the teaching process. She currently teaches a number of subjects that are relevant to the competition. A detailed overview of the candidate's teaching load for the last two years at the bachelor's and master's levels is attached. She has participated in teams that have developed syllabuses for the disciplines of Applied Mathematics, Risk Management, and Probability Theory and Mathematical Statistics. For her participation in the competition, she presents a contribution to one textbook and four teaching aids.

In view of all this, I give a positive assessment of the teaching activity of Senior Chief Assistant Professor PhD Velina Yordanova.

9. Plagiarism

Chief Assistant Professor PhD Velina Yordanova has signed a Declaration of Originality, stating that the monograph and publications she has submitted are her own work, that she has complied with copyright requirements regarding the sources used, and that the publications she has submitted for participation in the competition do not duplicate those submitted for participation in previous competitions for academic positions or procedures for acquiring a doctoral degree.

10. Questions, critical notes and recommendations

I have no questions or critical comments. In order to build on her achievements to date and further her future academic growth, I recommend that Chief Assistant Professor PhD Velina Yordanova publish the results of her research



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in publications included in global information systems for referencing, indexing, and evaluation systems, particularly those in Scopus and Web of Science.

11. Conclusion

Based on my review of the scientific works presented, their significance, and their scientific and applied scientific contributions, I find it reasonable to propose to the esteemed members of the Scientific Jury that Chief Assistant Professor PhD Velina Georgieva Yordanova to be elected to the academic position of "associate professor" in the professional field of 3.8. "Economics", scientific specialty "Quantitative Methods in Economics (Risk Management)".

19.02.2026

Prepared by: 

/professor PhD Svetlana Dimitrakieva/

Заличена информация съгласно
ЗЗЛД и регламент (ЕС) 2016/ 679

STATEMENT

Вх. №

PA20-374/05.03.2026r

by Assoc. Prof. Lyubomira Dragomirova Koeva-Dimitrova, PhD (MU - Varna) Member of the scientific jury for the competition for the academic position of "Associate Professor" in the field of higher education 3. Social, Economic, and Legal Sciences, professional field 3.8. Economics, scientific speciality "Quantitative Methods in Economics (Risk Management)"

1. General Information

- **Author of the Statement:** Assoc. Prof. Lyubomira Dragomirova Koeva-Dimitrova, PhD, Head of the Department of Health Economics and Management, Faculty of Public Health, Medical University - Varna; habilitated in the field of higher education 3. Social, Economic, and Legal Sciences, professional field 3.8. Economics.
- **Legal Basis:** Order of the Rector of UE-Varna № RD 06-14/19.01.2026 and the decision of the scientific jury from its first meeting held on 21.01.2026.
- **Competition Details:** Professional field 3.8. Economics; Faculty of Informatics, Department of Statistics and Applied Mathematics. The competition was announced in the State Gazette, issue 98, dated 18.11.2025.

3. Candidate

The sole candidate in the competition is **Chief Assistant Professor Velina Georgieva Yordanova, PhD**. Based on the submitted documents, the candidate meets the minimum national requirements under Art. 2b, para. 2 and 3 of the DASRB (Development of Academic Staff in the Republic of Bulgaria Act) for the academic position of "Associate Professor." The candidate also meets the additional quantitative requirements of UE-Varna under Art. 2b, para. 5 of the DASRB and Art. 101 of the PRAS (Regulations for the Development of Academic Staff).

4. Candidate Profile (Personal Characteristics)

- **Education:** Educational and Scientific Degree "Doctor" (PhD) in the scientific specialty Economics and Management (Construction) (Diploma № 034 / 17.02.2014). Dissertation Topic: "Opportunities for Optimizing the Production and Economic Activity of Construction and Assembly Enterprises."
- **Professional Biography:** Velina Yordanova is currently a Chief Assistant Professor in the Department of Statistics and Applied Mathematics at UE-Varna. She began working at UE-Varna in 2007 as a part-time lecturer and was elected as an Assistant Professor in the Department of Applied Mathematics in 2008. Her primary research interests include quantitative methods, mathematical modeling, risk management in construction enterprises, financial mathematics, and mathematics education.

5. Description of Scientific Works

The candidate submitted a total of **42 scientific works** for the competition (excluding the dissertation), including:

- **Monographs:** 2 (1 solo, 1 co-authored). The habilitation thesis is titled "Quantitative Methods for Risk Management in the Construction Enterprise" (2025, 154 pages).

- **Studies:** 1 (solo).
- **Scientific Articles:** 17 (8 solo), including publications in Web of Science.
- **Scientific Reports:** 17 (11 solo).
- **Textbooks and Manuals:** 5 (co-authored). The submitted works meet the requirements of Art. 112, para. 2 of the PRAS. No instances of identical content under different titles were found.

6. Identification of Contributions

The candidate's achievements can be categorized into the following areas:

Area I: Quantitative Methods in Economics and Management

- **Theoretical Enrichment:** Further development of mathematical modeling theory in construction management under risk.
- **Non-linear Models:** Development of economic-mathematical models optimizing investment activity with minimal risk.
- **Methodological Contributions:** Proposed methodology for assessing the economic sustainability of construction firms and defined a system of indicators for its measurement.
- **Applied Models:** Models for optimizing leasing activities and production programs using matrix games and decision-making models under uncertainty.

Area II: Methodology of Mathematics Education

- **Educational Innovations:** Methodological approaches for teaching complex numbers, irrational equations, and financial mathematics.
- **Digitalization:** Practical MS Excel applications for solving financial problems (interest, discounting, investment portfolios).
- **Talent Development:** Active participation in creating tasks for financial mathematics Olympiads.

Citation Assessment: The candidate has **19 identified citations**, some of which are in Web of Science and Scopus indexed publications. The candidate's current h-index is 2 in Google Scholar and 1 in Web of Science.

7. Participation in Projects and Scientific Forums

Dr. Yordanova has been active in 6 research projects since 2014, each concluding with a monographic work. She frequently participates in national and international conferences closely related to the competition's theme.

8. Teaching Activities

The teaching load is significant: **855 hours** at the Bachelor's level and **46 hours** at the Master's level over the last two years. She leads seminars in "Applied Mathematics" and "Quantitative Methods" and has co-authored 1 textbook and 4 manuals.

9. Plagiarism

No plagiarism, incorrect data, or improper referencing of foreign sources were found in the submitted scientific works.

10. Questions to the Candidate

1. How can your proposed quantitative models integrate the analysis of "near-misses" as an early indicator of systemic risk, and to what extent does the subjective factor in reporting them affect the precision of mathematical modeling?
2. In which stages of your risk assessment methodology do you see the most potential for integrating **Artificial Intelligence (AI)** and Machine Learning (e.g., for recognizing complex dependencies in unstructured data)? Do you believe AI calibration would reduce "subjective uncertainty" or create new risks regarding transparency?

11. Conclusion

Based on the above, I believe that Chief Assistant Professor Velina Georgieva Yordanova, PhD, fully meets the requirements of the DASRB and the PRAS of UE-Varna. Her scientific output is significant in volume and quality, and her teaching activity is intensive and effective.

I propose to the Scientific Jury and the Faculty Council of the Faculty of Informatics to elect Chief Assistant Professor Velina Georgieva Yordanova to the academic position of "Associate Professor."

Date: 04.03.2026

Prepared by:

Заличена информация съгласно
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(Assoc. Prof. Lyubomira Koeva-Dimitrova, PhD)