



OPINION

by Assoc. Prof. Dimitar Rumenov Razpopov, PhD
Faculty of Economics,
Agricultural University – Plovdiv,
assigned a member of the scientific jury according Order No. RD-16-1018/08.10.2025
of the Rector of AU-Plovdiv

Regarding the competition for the academic position of “Professor” at the Agricultural University – Plovdiv

in the field of higher education: **4. Natural Sciences, Mathematics and Informatics**

professional area: **4.5. Mathematics**

scientific specialty: **Mathematical Modelling and Application of Mathematics**

announced in State Gazette, issue No. 65 from 08.08.2025,

with a candidate **Assoc. Prof. Velika Nikolaeva Kuneva, PhD**

Department of Mathematics and Informatics

Faculty of Economics, Agricultural University – Plovdiv

1. Brief introduction of the candidate

Assoc. Prof. Velika Kuneva, PhD, is the only candidate in this competition. She graduated in 2001 from the Faculty of Mathematics and Informatics at Paisii Hilendarski University of Plovdiv, with a master's degree in *Mathematics and Informatics*. In 2013, she successfully defended her PhD thesis in the scientific field *Algebra and Number Theory*.

Between 2001 and 2008, she worked as a teacher of mathematics, informatics, and IT in secondary education.

Her academic career began in 2008 as an Assistant Professor, later as Chief Assistant Professor, and since 2016 she has held the position of Associate Professor at the Department of Mathematics and Informatics, Faculty of Economics, Agricultural University – Plovdiv. Assoc. Prof. Kuneva also has management experience, having served as Vice-Dean of the Faculty of Economics (2017–2018 and 2020–2024), and currently as **Dean** of the Faculty of Economics.

2. General overview of scientific production.

The materials submitted for the competition are structured in accordance with the Regulations for Academic Positions of the Agricultural University – Plovdiv. Assoc. Prof. Kuneva participates with a total of 33 scientific works, grouped as follows:

- Publications with Impact Factor – 12
- Publications in peer-reviewed and indexed journals without IF – 20
- Publications in conference proceedings – 1

The publications and citations are indexed in Web of Science, SCOPUS, ZbMATH, or journals with SJR rating.

Her personal contribution is illustrated by the fact that in 12 papers she is the first author, in 13 is second, and in 8 – third or subsequent co-author. All papers are co-authored, demonstrating excellent teamwork and high professional standards.

Her research activity is complemented by 12 presentations at international and 6 at national scientific forums.

She is also the author of

- ❖ one textbook
- ❖ two teaching handbooks.

3. Teaching activity

Assoc. Prof. Kuneva's teaching experience is extensive. She teaches Applied Mathematics, Higher Mathematics I and II, and Optimization Methods to undergraduate students in both full-time and part-time programs. She has also taught foreign students under the Erasmus+ program in *Higher Mathematics*, *Applied Mathematics*, and *Optimization Methods*.

In master's programs, she teaches *Applied Mathematics*, *Biostatistics*, and *Economic Statistics*. Her total teaching and extracurricular workload between 2020 and 2025 amounts to 4,498.3 hours.

She has supervised five successfully defended bachelor's theses and two doctoral students at the Agricultural University.

Her teaching output includes one textbook in Higher Mathematics and co-authorship of two handbooks - "*Guide to Applied Mathematics*" (2011) and "*Guide to Optimization Methods*" (2018), which are useful for both students and professionals interested in modern mathematical and statistical applications.

4. Scientific work

I accept and positively evaluate the contributions formulated in the candidate's self-assessment report, which logically follow from her research results and have both theoretical and applied significance.

Her results can be grouped into two main thematic categories:

- ❖ Application of mathematical-statistical approaches for quantitative and qualitative assessment of agricultural crop yields through regression and dispersion analyses, as well as cluster analyses for logical grouping of varieties by similarity or difference. Correlation and factor analyses, including principal component methods, are applied to reduce dimensionality and highlight key variables. She has also developed a kinetic model describing the progression of autoimmune diseases, represented by a nonlinear system of differential equations modeling the biological activity of interacting populations.
- ❖ Applied solutions of transport problems and Leontief input-output balance models using MS Excel (Solver). The algorithmic nature of these problems allows for practical software implementation, facilitating data processing and computational efficiency.

Her mathematically grounded conclusions, based on diverse statistical analyses, contribute to more objective evaluations of empirical results—an important applied contribution.

Assoc. Prof. Kuneva has 26 citations of her works, mostly in indexed journals with IF/SJR. The number of citations exceeds the requirements for the academic rank of Professor at the Agricultural University.

Participation in scientific projects:

Assoc. Prof. Kuneva has presented a report on participation in 2 research projects - one international project /European Green University (UniGreen), 2023 - 2026, ERASMUS+/ and one national. As a participant in the National Scientific Program "*Intelligent Crop Production*", where the Agricultural University is the lead partner, she contributed to three work projects and was leader of Work Package 3.1.

5. Notes and recommendations

I have no critical comments or recommendations.

6. Personal impressions

I have followed the entire academic career of Assoc. Prof. Kuneva—from her early years as part-time lecturer, through her appointment as Assistant Professor, Senior Assistant, and the successful graduations as PhD in Algebra, to her current research and teaching achievements. I hold very positive impressions of her professional and personal qualities. She enjoys the respect and trust of both colleagues and students, being a dedicated lecturer and a competent researcher.

7. Conclusion

Based on the analysis of the candidate's pedagogical, scientific, and applied research activities, I believe that Assoc. Prof. Velika Kuneva, PhD, fully meets the requirements of the Academic Staff Development Act (ZRASRB), its implementing regulations, and the internal rules of the Agricultural University – Plovdiv for the academic position of Professor.

Assoc. Prof. Velika Kuneva has a clearly outlined profile of her scientific and research work. She is established as a competent and motivated scientist.

All this gives me reason to evaluate her overall activity **POSITIVELY**.

I would like to propose to the esteemed Scientific Jury also vote **positively**, and that the Faculty Council of the Faculty of Economics at the Agricultural University - Plovdiv elect Assoc. Prof. Velika Nikolaeva Kuneva, PhD to the academic position of **Professor** in the field of higher education **4. Natural Sciences, Mathematics and Informatics**, professional area **4.5. Mathematics**, scientific specialty *Mathematical Modelling and Application of Mathematics*.

Plovdiv
06.11. 2025

Prepared by
Assoc. Prof. **Dimitar Razpopov, PhD**

