

STATEMENT

from Prof. Toni Bogdanova Mihova, PhD
professional field 3.7. Administration and Management
Department of Industrial Management
Technical University - Sofia, Plovdiv branch

Regarding: the materials submitted for participation in the competition for occupying the academic position of "professor" at Plovdiv University Paisii Hilendarski

in the field of higher education 3. Social, economic and legal sciences, professional field 3.7. Administration and Management, scientific specialty Quantitative Methods and Modelling in Management.

Assoc. Prof. Dr. Tanya Petrova Yankova-Lilova, Department of Management and Quantitative Methods in Economics at the Faculty of Economics and Social Sciences (FESS) participates as a candidate in the competition for the academic position "professor" at the Department of Management and Quantitative Methods in Economics at FESS, announced in State Gazette, issue 96 from 11.11.2025, and on the website of the Paisii Hilendarski University of Plovdiv.

1. General presentation of the procedure and the candidate(s)

By order No. PD-22-45 of 09.01.2026 of the rector of Plovdiv University Paisiy Hilendarski (PU), I have been appointed as a member of the scientific jury in a competition for the academic position of "**professor**" at PU in the field of higher education 3. Social, economic and legal sciences, professional field 3.7. Administration and management (Quantitative methods and modelling in management), **announced for the needs of the** Department of Management and Quantitative Methods in Economics at the Faculty of Economic and Social Sciences.

Only **one candidate** submitted documents to participate in the announced competition: Associate Professor Dr. Tanya Petrova Yankova-Lilova, from the Department of Management and Quantitative Methods in Economics, FESS at Plovdiv University Paisiy Hilendarski.

The set of materials submitted by the candidate on paper is in accordance with the Regulations for the Development of the Academic Staff of the University of Plovdiv and includes all required

documents. The candidate Assoc. Prof. Dr. Tanya Petrova Yankova-Lilova has submitted a total of 22 scientific works, of which - 14 studies, 1 monograph, 1 textbook and 6 scientific articles and reports. 22 scientific papers outside the dissertation and 10 research projects are accepted for review and considered in the final assessment. Documents such as a certificate of work experience, references for academic work, classroom employment, work with doctoral students, participation in projects and others are also submitted.

I summarize that the candidate has properly submitted all the necessary documents for participation in the announced competition. I accept for review all 22 scientific papers submitted for participation in the procedure for occupying the academic position of "professor" and are outside the procedures for "doctor" and "associate professor".

2. General characteristics of the candidate's activities.

Assessment of the pedagogical preparation and activity of the candidate

Assoc. Prof. Dr. Tanya Petrova Yankova-Lilova has 16 years, 3 months and 28 days of teaching experience according to the submitted certificate of work experience. The annual academic workload for 2025/2026 is 225 hours of lectures and 150 hours of tutorials in the following subjects:

- Applied Mathematics;
- Financial Mathematics;
- Quantitative methods in management.

The candidate is experienced in teaching students from various majors: Finance, Accounting, Business Management and Public Administration and has developed curricula in the following subjects: Applied Mathematics, Financial Mathematics, Quantitative Methods in Management, Mathematics, Operations Research in Economics.

The candidate has published one textbook: Differential Calculus for Economists, FESS Textbook Series (Book 1), Paisii Hilendarski University Publishing House, 2015, Plovdiv, ISBN: 978-619-202-015-6, 120 pages.

Assoc. Prof. Dr. Tanya Yankova-Lilova participated as an academic mentor in the practical training of students from various majors of FESS within the framework of the national project BG05M2OP001-2.002-0001 Student Internships – MES under Science and Education for Smart Growth Operational Program 2014 – 2020 through the European Social Fund of the European Union.

According to the attached reference, Associate Professor Tanya Yankova-Lilova is the scientific supervisor of a doctoral student Stefan Deyanov Georgiev, who defended his doctoral

degree in 2023 in the field of higher education 3. Social, economic and legal sciences, professional field: 3.8. Economics, doctoral program: Economics and Management (Industry).

Assessment of the candidate's scientific and applied scientific activities

The candidate Assoc. Prof. Dr. Tanya Yankova-Lilova has proposed a total of 22 scientific works, of which 1 monograph, 14 co-authored studies, 6 articles and reports, 1 textbook for participation in the procedure for occupying the academic position of "professor". The presented monograph entitled *Mathematical Modelling in Economic Research - Selected Methods and Approaches* was published in 2025 by the University Publishing House Paisii Hilendarski, ISBN: 978-619-281-010-8, in a volume of 216 pages.

The 20 scientific publications presented can be classified as follows: 3 articles and reports published in scientific journals, referenced and indexed in academic world-renowned databases, 3 articles and reports published in non-refereed journals with scientific review or published in edited collective volumes and 14 Studies published in scientific journals, referenced and indexed in world-renowned databases with scientific information. 19 of the scientific publications are in English and 1 in Bulgarian..

All submitted scientific papers are on the topic of the announced competition. The candidate fulfils the national minimum requirements for acquiring the academic position of "Professor" and satisfies the additional faculty requirements of the Faculty of Economics and Social Sciences at the University of Plovdiv.

Contributions (scientific, scientific applied, applied) and citations

I accept the presented self-assessment of the contributions of Assoc. Prof. Dr. Tanya Yankova-Lilova. I appreciate the high significance for science and practice of the following contributions:

scientific:

1. Research in the field of digital transformation, Industry 4.0 and Industry 5.0 is systematized, enriched and developed (publications No. 7, 17, 21).. (publications No. 7, 17, 21).
2. An interdisciplinary approach to the study of complex, multifactorial and dynamic socio-economic processes is applied by combining classical statistical methods, fuzzy sets, Structural Equation Modeling (SEM), machine learning methods and multi-criteria analysis (publications No. 1, 2, 8, 11, 12, 13, 15, 16, 18).

3. New frameworks for static comparison and dynamic tracking of alternatives are proposed, which allow for continuous monitoring, evaluation and informed management decision-making (publications No. 1, 3, 9, 11, 20).

4. Innovative models for early detection of students at risk, IoT-based learning environments, intelligent chatbots with generative artificial intelligence, and AI-based assessment frameworks, aimed at personalization, increasing engagement, quality assurance, and academic ethics in higher education are developed (publications No. 2, 4, 8, 14, 19).

scientific scientific applied, and applied:

1. Empirically based models for analyzing attitudes, satisfaction and acceptance mechanisms in e-commerce, digital payments, e-government, social networks and tourism services are developed (publications No. 12, 13, 15, 16, 17, 18).

2. The scope of application of decision-making is expanded to socially significant and public areas such as education, public health, environmental sustainability and nutritional behaviour, which demonstrates the broad applicability of intelligent decision-support methods.

3. Conceptual and methodological solutions for the ethical and controlled implementation of generative AI technologies in education and tourism, combining innovation with institutional accountability and quality assurance are developed (publications No. 14, 17, 19).

4. The scientific results are integrated into the educational process and in the supervision of doctoral students, as means of supporting the preparation of young researchers and the transfer of knowledge between science and education (publications No. 1, 2, 4, 7, 14, 19, 21).

The candidate's scientific contributions, presented in the publications, are significant for science and practice and reflect interdisciplinary research activity in the field of quantitative modeling, decision support systems, digital transformation and intelligent analysis of socio-economic systems. Evidence of this is the citations of the publications by other authors, as follows:

- citations in scientific publications, referenced and indexed in world-renowned scientific databases – 39 issues;
- citations in non-refereed journals with scientific review – 8 issues.

The citations are from teams of foreign authors, in the period 2021 - 2024 in prestigious international publications, which makes the candidate a recognizable scientist among scientific circles in our country and abroad.

Implementation

The candidate Assoc. Prof. Dr. Tanya Yankova-Lilova has submitted the relevant documents for participation in 2 international and 1 national projects. Dr. Tanya Yankova-Lilova is the head of a university project FP19-FISN-014 named Modern Tools and Approaches for Economic and Business Analyses, funded by the National Science Foundation at the Paisii Hilendarski University, period: 2019 - 2020.

The candidate's extracurricular activities are related to participation in national and international projects, as well as in the management of a university project.

3. Critical notes and recommendations

I have no significant critical remarks, but I would make a few recommendations to the candidate.

Considering the high potential of Assoc. Prof. Dr. Tanya Petrova Yankova-Lilova, I recommend the development of textbooks and teaching aids in the relevant scientific field.

The other recommendation for the candidate's future work is to expand the work with doctoral students, with the aim of creating a scientific school in the indicated research field.

CONCLUSION

The documents and materials presented by Assoc. Prof. Dr. Tanya Petrova Yankova-Lilova **meet all the requirements** of the Act on the Development of the Academic Staff in the Republic of Bulgaria (ADASRB), the Regulations for the Implementation of the ADASRB and the relevant Regulations of the Paisii Hilendarski University.

The candidate in the competition has presented a sufficient number of scientific works published after the materials used in the defense of the educational and scientific degree of "doctor" and in the competition for the academic position "associate professor". The candidate's works contain original scientific and applied contributions that have received international recognition, with a representative part of them being published in journals and scientific collections of international academic publishers. The theoretical developments have practical applicability, with some of them being directly oriented towards academic work. The scientific and teaching qualifications of Assoc. Prof. Dr. Tanya Petrova Yankova-Lilova are **undoubted**.

The results achieved by Assoc. Prof. Dr. Tanya Petrova Yankova-Lilova in academic and research activities **fully** comply with the minimum national and additional requirements of the

Faculty of Economic and Social Sciences, adopted in connection with the Higher Education Act, Development of Academic Staff in the Republic of Bulgaria.

After reviewing the materials and scientific papers presented in the competition and in view of the analysis of their significance and the scientific, scientific applied, and applied contributions contained therein, I find it reasonable to give my positive assessment with conviction. I recommend that the Scientific Jury prepare a report and a proposal to the Faculty Council of the Faculty of Economic and Social Sciences for the election of Assoc. Prof. Dr. Tanya Petrova Yankova-Lilova. to the academic position of "professor" at the Paisiy Hilendarski University in the field of higher education 3. Social, economic and legal sciences, professional field: 3.7. Administration and management (Quantitative methods and modeling in management).

9.03.2026

Member of the Scientific Jury:.....
Prof. Toni Bogdanova Mihova, PhD