



REVIEW

Of the materials for participation in the competition for the occupation of the academic position of „professor“, in the field of higher education „3. Social business and legal sciences, professional area 3.7 administration and management, scientific specialty „application of computing in economics“ in the discipline „information technologies“ announced by the University of Forestry in the State Gazette No. 101/27.12.2019 procedure code ABM-P-1119-27.

The candidate for the competition is:

Associate Professor Marina Petrova Mladenova, PhD

Review by: PhD Radoslav Iliev Miltchev, Associate Professor in 3.7 Administration and management from the University of Forestry

1. Short biographical data for the candidate.

The candidate in the competition, Associate Professor Marina Petrova Mladenova, PhD has completed her secondary education at the Sofia Mathematics High school, where she obtained a specialty in „Programming for EIM“. In 1991 she completed her higher education and graduated from Technical university Sofia with a specialty „Electronic engineering and microelectronics“ with a qualification „engineer in electronics and automaton“. She is employed in the University of forestry in the year 1996 in the position of assistant in the department of „computer systems and informatics“ and has consecutively passed through the positions of „Senior Assistant“ and „Chief Assistant“. In 2009 she acquired the educational and scientific degree of „doctor“, after a successful defense of a doctorate on the topic „Research and results on the use of information technologies in the management of the furniture industry“, in the scientific field 05.02.21 – „Organization and management of production (by industry and sub-sector)“. After a competition conducted in 2011 for the needs of the department of „computer systems and informatics“ from the „business administration“ faculty, the candidate Marina Petrova Mladenova holds the academic position of "Associate Professor" (Diploma №UF – AD – 2011 -03/13.12.2011), which she’s currently upholding at the time of submission of the document for this competition. The working experience of the candidate at the time of announcement of the current competition is in total 23 years and 2 months acquired without interruption at the University of forestry. During this time period she leads lectures and exercises in a range of disciplines, among which „information technologies – part 1“ and „computer projecting – CAD/CAM“ systems, with students from fields such as "Technology of wood and materials", "Engineering design", "Business management", Bachelor's degree, as well as "Informatics" and "Information technology" for students Bachelor's degree in "Faculty of Agronomy" and Faculty of "Ecology and Landscape architecture".

Associate Professor Marina Petrova Mladenova has taken additional courses, including „Administrator of the e-learning platform Blackboard Learn“ as well as „Blackboard Learn e-learning Platform Trainer“. Since 2011 she has been administrating the UF website, and since 2014 administers the e-learning platform of at the Distance learning center of the University of Forestry.

In conclusion, it can be summarized that the candidate in the competition Associate Professor Marina Petrova Mladenova meets the minimum requirements for occupation of the academic position of Professor in the higher education field of 3. „Social, Business and Legal Sciences“, Professional Degree 3.7 „Administration and Management“ and even exceeds them. All the mandatory conditions of the provisions of Article 60 from the Regulations for the Application of the Development of Academic Staff Act in Republic of Bulgaria are observed.

2. Compliance of the submitted documents and materials of the candidate with the required ones in accordance with the Regulations for the Development of the Academic Staff at the University of Forestry.

The documents submitted by Associate Professor Marina Petrova Mladenova for participation in the competition for professor meet the requirements specifies in the regulations from the Regulations for the Development of the Academic Staff at the University of Forestry. Requirements in Article 65a Paragraph 4 of the same regulations are met in connection with the description of the submitted documents and materials.

3. Assessment of the teaching activity of the candidate.

Based on the evidence materials submitted by the candidate in the competition, it can be deduced that the main teaching activity within the UF includes leading lectures and exercises for students of different fields including Information Technologies part 1, Computer Aided Design CAD/CAM Systems, Computer Systems for Managing Projects, Informatics, and Information Technologies. Associate professor Mladenova has also lead exercises in informatics in English for foreign students from the field of Veterinary medicine. The yearly employment of the candidate at the professional field of the announced competition is above the minimum determined by the decision of the Academic Council of the University of Forestry of 360 hours for the period preceding the competition, except for one year during which the use of prolonged sick leave was used due to serious trauma and independent of the candidate circumstances. The average classroom employment on an annual basis amounts to 364 hours.

The reference shows that the candidate participates in the competition with three textbooks: "Information Technology Part I" and "Databases lecture course" - published in Bulgarian for students majoring in "Technology of wood and furniture" and "Engineering design" and fields from the Faculty of Agronomy; "Informatics for Students of Veterinary Medicine" - issued in English for the purposes of training foreign students majoring in "Veterinary Medicine" at the Faculty of Veterinary Medicine. For participation in the competition 5 textbooks are presented - 3 independent and 2 co-authored, intended for training purposes at the University of

Forestry. The use of the new methods and means for teaching and conducting the educational process makes a good impression, as evidenced by the developed in an electronic format one textbook and two teaching aids.

It should be noted that in addition to the training she conducts in Bachelor's and Master's degrees, Associate Professor Mladenova has successfully completed the training of PhD student Diana Kirilova Kirkova at the Department of Computer Systems and Informatics, who successfully defended her dissertation in 2017.

In conclusion, it can be summarized that the teaching activity of Associate Professor Marina Mladenova corresponds to the scientific specialty and the discipline in which the competition was announced. The candidate has the necessary experience and meets the requirements set out in the regulations, both in the context of her many years of experience as a lecturer at the University of Forestry as well as the large number of hours worked. I also have personal observations, in my capacity as a long-term lecturer and member of the Department of Computer Systems and Informatics, which allow me to point out that in previous years, apart from those included in the competition, the candidate has spent hours significantly exceeding the adopted standard. This is a guarantee and a certificate for the acquired and accumulated experience and skills in the field of teaching and conducting the educational process.

4. Evaluation of the scientific, scientific-applied and publishing activity of the candidate.

The reference submitted by the candidate for compliance of the scientific production with the minimum national requirements under Article 2B of the Development of the Academic Staff Act in Republic of Bulgaria and Article 2A, Paragraph 1 of the Regulations of the Development of the Academic Staff at the University of Forestry, under a competition for the academic position "Professor" has been prepared in detail and reflects the scientific, scientific-applied and publishing activity. The review of the submitted materials and documents confirms a significant part of the data in the self-assessment prepared by the applicant, which allows to assess that the minimum national requirements are met. The reason for this is given by the 32 publications submitted for participation in the competition, incl. two monographs, two studies, three books, and articles in refereed and non-refereed journals and collections, which are largely the result of the work of Associate Professor Mladenova as a leading author or co-author.

4.1. Participation in scientific, scientific-applied and educational projects.

In the materials for the competition, Associate Professor Marina Mladenova provides information about scientific and educational projects in which she has participated as a member of the working team or as a project leader (project "Virtual Laboratory for Innovation in Research and Training in Biological Sciences"). Participation in three scientific projects of national character is indicated, in one of which she is a member of the working team, and in two of these projects she was a scientific supervisor. The topics of the projects are in the context of the specifics of the candidate's training activity, with emphasis on research and implementation of opportunities for introduction of innovations in research and teaching,

research of current trends and good practices and others, and the achieved practical results can find application in both theory and practice of the educational process.

Participation in six projects of mainly educational nature is indicated, the results of which have contributed to both technical and staffing of the educational process at the University of Forestry with the introduction and evaluation of new technologies based on the use of electronic resources and virtual methodologies. Associate Professor Mladenova is involved as a trainer in the implementation of the e-learning platform BlackBoard, which allows successful application of its scientific capacity and many years of teaching experience in the training and subsequent administration of the platform.

4.2 Characteristics of the published scientific results.

In terms of quantity, the candidate has indicated 74 publications, of which 32 publications have been submitted for participation in the competition, incl. two monographs, two studies, three books, ten articles in peer-reviewed scientific journals and others. The focus of the presented scientific papers is related to the professional field in the scientific area of 3. Social, economic and legal sciences and includes 13 independent publications, 16 publications with one co-author, 2 publications with two co-authors and 1 publication with three co-authors, as ~ 30% percent of the publications are in a foreign language.

Statistics show that the published and achieved scientific results are largely the result of the activities and scientific, scientific-applied and practical research of Associate Professor Marina Mladenova, characterized by relevance and practical benefit in the field of application and development of information technology in the context of the educational process.

Special attention should be paid to the monographs and studies of Assoc. Prof. Marina Mladenova, PhD (№№ G5-1, V3-1, G9-1, G9-2), which are dedicated to the impact of information and communication technologies on the workplace. The subject of research are: the methodological bases of digital competencies and the existing European frameworks in this direction, their analysis in order to identify key IT with influence in the formation of the skills of a competitive workforce; specific skills, experience and way of working in the context of the digital transformation of the economy; IT skills in the context of overcoming the digital backlog and labor market imbalances; the strengths and weaknesses in the rating systems and organizations "Alumni" (study co-authored with the successfully defended under the guidance of Associate Professor Mladenova PhD student - Diana Kirkova on "Monitoring and evaluation of groups of indicators from the rating system for higher education"); offering cloud services in the context of current status, characteristics and trends for future development.

In summary, the conclusions made can be useful for solving problems in the field of: the formation of strategies for development and improvement of the educational system in Bulgaria and the market of educational services; when making decisions in the field of vocational guidance. The results could be applied to activities related to updating the curricula in the higher education system.

4.3. Reflection of the candidate's scientific activity in the literature (citation).

The reference presented by the candidate regarding the presence of known citations of the achieved results from the research activity show good recognizability in the literature. The points obtained in this direction show results that exceed the required minimum criteria for the academic position "Professor", observing citations in peer-reviewed and indexed scientific journals, monographs, collective volumes with scientific review and non-referred publications (the latter are negligible in number compared to the general number of citations).

4.4 Contributions in the works of the candidate (scientific, scientific-applied, applied).

Based on the research conducted individually and in a team, the candidate has indicated a significant number of scientific-methodological, scientific-applied and applied contributions. Among the most important of them are:

- Identification of key professional areas for development in the context of the labor market, the dynamics of information technologies development and their innovation capacity in the process of forming a balanced development and distribution of labor, summary of responsibilities, obligations and requirements for new jobs, including promising jobs. (№ V3-1, G5-1, G8-1, G8-3, G8-4, G8-7, G8-12, G9-1);
- Development and testing of a "Balanced Map" for economization and evaluation of the effectiveness of the activities inherent in the University of Forestry. (№ G8-9, E16-4);
- Development and testing of an online survey "Quality of learning resources", for feedback with students, used as a corrective in the process of offering quality learning resources that meet modern educational trends and current demand in the specific subject area. (№ E20-1, E20-2, E20-3, E21-1, E21-4, E21-5).

In conclusion, it can be summarized that, as a reviewer, I largely accept the contributions indicated by the candidate. I cannot accept some of the contributions made as scientific and methodological contributions, namely the "Balanced Map" and the "Working with the System" survey, which I accept and report as a scientifically applied and applied contribution.

5. Assessment of the candidate's personal contribution.

The analysis of the documents for participation in the competition, the quantitative analysis of the scientific production and the professional experience of associate professor Marina Mladenova, allow me to draw a conclusion in the direction of significant personal contribution of the candidate in relation to the achieved results and reasoned conclusions, assessments and proposals.

6. Critical remarks and recommendations.

The evaluation of the presented scientific production by the candidate allows to conclude that there are no significant omissions, inaccuracies or contradictions. As a critical remark, which does not essentially change the final conclusion that Associate Professor Marina Mladenova

significantly exceeds the required minimum requirements, the need to improve the refinement of contributions in order to avoid duplication can be pointed out. At this stage, contributions 2.3 and 2.5, to some extent duplicate contributions 1.4 and 1.5, respectively.

The recommendations are rather related to the future activity of the candidate, namely:

1. Refinement of citations according to the requirements of NACID. Citation in a textbook and textbook, according to the interpretation of NACID cannot fall into the column "Citation in monographs and collective volumes with scientific review", despite my personal belief to the contrary, especially when it comes to citing innovative research and publications from peer-reviewed and indexed scientific journals.
2. Directing the candidate's efforts to publication in magazines with an impact factor.
3. Further development of the studied concepts and the achieved results, through the attraction and training of future doctoral students in the scientific specialty "Application of computer technology in economics" in the accredited doctoral program at the Department of Computer Systems and Informatics.

7. Personal impressions.

I have been working with Associate Professor Marina Mladenova since 1997, when I entered the Department of Computer Systems and Informatics as a part-time assistant. My personal impressions of the candidate are entirely positive, and I consider her to be a dedicated, erudite and competent scientist, teacher and colleague. We have worked on research and infrastructure projects together, which confirm my high opinion of a methodical and executive person with very good qualities for teamwork.

8. Conclusion.

In accordance with the requirements of the Development of Academic Staff Act in Republic of Bulgaria, Regulations of Application of the Development of Academic Staff Act in Republic of Bulgaria, and Regulations of the Development of Academic Staff in University of Forestry, evaluating the total presented scientific output of the candidate Assoc. Prof. Marina Petrova Mladenova, I believe that the necessary conditions for holding the academic position "Professor" are met.

In this regard, I PROPOSE the candidate Associate Professor Marina Petrova Mladenova, PhD to acquire the academic position "Professor" in the discipline "Information Technology" from PN 3.7. "Administration and Management".

Reviewer:

/Assoc. Prof. Radoslav Miltchev, PhD/

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