

REVIEW

By Assoc. Prof. Emil Hristov Doychev, University of Plovdiv “Paisii Hilendarski”

of the documents submitted for participation in a competition for acquiring the academic position of “Professor” at the University of Plovdiv “Paisii Hilendarski” in area of higher education 4. Natural Sciences, Mathematics, and Informatics, professional field: 4.6 Informatics and Computer Science (Informatics – Distributed Systems and Applications)

In the competition for “Professor”, announced in the State Gazette issue 91 of 12 November 2021, and on the website of the University of Plovdiv “Paisii Hilendarski”, for the needs of the Department of Management and Quantitative Methods in Economy at the Faculty of Economics and Social Sciences, only Assoc. Prof. Olga Dobрева Rahneva, PhD, participates as a candidate.

1. General presentation of the procedure and the candidate for the competition

By order № RD-21-37 of 10 January 2022 of the Rector of the University of Plovdiv “Paisii Hilendarski” (PU), I was appointed a member of the scientific jury of a competition for acquiring the academic position of “Professor” at PU in area of higher education 4. Natural Sciences, Mathematics, and Informatics, professional field 4.6 Informatics and Computer Science (Informatics – Distributed Systems and Applications), announced for the needs of the Department of Management and Quantitative Methods in Economy at the Faculty of Economics and Social Sciences (FESS).

At the first meeting, held online in the period 17 January 2022 – 18 January 2022, the scientific jury accepted the documents for the competition. At this meeting, I was appointed to write a review.

Only one candidate has submitted documents for participation in the competition: Assoc. Prof. Olga Dobрева Rahneva, PhD, from the University of Plovdiv “Paisii Hilendarski”.

The set of materials on paper and electronic media, presented by Assoc. Prof. Olga Dobрева Rahneva, PhD, is in accordance with the Law on the Development of the Academic Staff of the University of Plovdiv “Paisii Hilendarski” and includes the following documents:

- An application form to the Rector for admission to the competition;
- A Curriculum Vitae in European format;
- A diploma of higher education;
- A diploma for acquired educational and scientific degree “Doctor”;
- A certificate for the academic position of “Associate Professor”;
- A complete list of scientific papers;
- A list of scientific papers for participation in the competition;
- Information on compliance with the minimum national requirements;
- Information on compliance with the additional requirements of FMI;
- Abstracts of scientific papers for participation in the competition in Bulgarian and English;

- An author's reference for the scientific contributions in the works for participation in the competition;
- Documents for educational work;
- Documents for scientific work;
- A certificate of work experience;
- A list of noticed citations;
- Scientific papers for participation in the competition;
- A declaration of originality and authenticity of the attached documents;
- A letter of assignment to the Dean of FMI;
- An order of the Dean of FMI for determination of a competent department;
- A separation protocol.

Assoc. Prof. Olga Rahneva, PhD, participates in the competition with 27 scientific papers, of which 2 monographs in English, 1 monograph in Bulgarian, 2 textbooks, and 22 scientific publications. All of them were published after acquiring the academic position of "Associate Professor". Of the presented scientific publications, 19 are in English, 12 have been published in journals and 8 in Proceedings of international conferences. Most articles are co-authored. The candidate has submitted a reference for 387 citations.

The presented set of materials is in accordance with Art. 77 (1) of the Regulations for Development of the Academic Staff of the University of Plovdiv "Paisii Hilendarski". By examining the submitted documents, it is established that Assoc. Prof. Olga Dobрева Rahneva, PhD, satisfies the requirements of the normative documents and exceeds the national scientometric criteria for holding the academic position of "Professor" under 4.6. Informatics and Computer Science, as well as the Additional Requirements of the Faculty of Mathematics and Informatics (FMI) according to Art. 76. (4) of the Law on the Development of the Academic Staff (LDAS) of the University of Plovdiv for holding the academic position "Professor" at the University of Plovdiv "Paisii Hilendarski".

Assoc. Prof. Olga Rahneva, PhD, received her Master's degree as a *Mathematician-Calculator and Teacher in Secondary Schools* in 1980 at the Faculty of Mathematics and Informatics at the University of Plovdiv. In 1995, she received a Master's degree in *Finance and Accounting* from the University of National and World Economy. She acquired her educational and scientific degree "Doctor" in Informatics in 2006. Assoc. Prof. Olga Rahneva, PhD, has had many years of experience as a lecturer at the University of Food Technologies (the Higher Institute of Food and Flavour Industry) and PU, being promoted from the position of *Assistant* obtained in 1986, to *Senior assistant* in 1989, *Chief Assistant* in 1993, and *Associate Professor* in 2008 at the University of Food Technologies (UFT) and at the University of Plovdiv in 2014.

2. General characteristics of the candidate's activity

Assoc. Prof. Olga Rahneva, PhD, has many years of teaching entirely in professional field 4.6. As a lecturer at the University of Food Technologies from 1986 to 2014, she read lectures in 11 academic disciplines: *Databases, Pascal Programming, Programming and Use of Computer Systems Part I and II, Computer Systems and Communications, Informatics Part I and II, Economic Informatics, Information Technology, Tourism Management Information Systems, and Electronic Market.*

As an associate professor since 2014 at the Faculty of Economics and Social Sciences at the University of Plovdiv, she has given lectures in *Informatics*, *Information Systems and Technologies*, and *E-Commerce* in almost all Bachelor's degrees at the faculty. She has also lectured on *E-commerce* at the Faculty of Chemistry at the University of Plovdiv.

Assoc. Prof. Olga Rahneva, PhD, is a representative of the Faculty of Economics and Social Sciences at the University Center for Young Scientists, Doctoral, and Postdoctoral Students – Academia Iuventutis. She was the head of the University of Food Technologies team for participation in the Republican Student Programming Olympiads. She also participated as a member of the technical committee of the 21st International Olympiad in Informatics in 2009 in Plovdiv.

Assoc. Prof. Olga Rahneva, PhD, has published 6 textbooks and teaching materials on paper and 3 on electronic media.

Her research activity, as well as her use of modern information technologies, are a prerequisite for her excellent results in the educational process. All this gives me reason to evaluate highly the pedagogical experience of the candidate in the competition.

The research interests of Assoc. Prof. Olga Rahneva, PhD, are related to the very current topic of development and application of distributed systems in e-learning, where her research is related to the development of a distributed cluster for electronic testing (Distributed e-Testing Cluster) – DeTC, as well as the development and implementation of a Distributed Platform for e-Learning (DisPeL). A monograph on this topic has been published, systematizing nearly 20 years of research. Another important area of research is the topic of application of informatics and information technology in mathematics, where she participates in specialized research on sigmoidal, cumulative, and adaptive functions, which have actively been used in various branches of science in recent years.

Assoc. Prof. Olga Rahneva, PhD, has participated in over 15 international, national, and university research or educational projects. In these she was: a regional coordinator for the University of Food Technologies of one international and one national projects; participant in one international and 5 national projects; leader of one university project at UFT and participant in over 6 university projects at UFT and FMI at PU.

Assoc. Prof. Olga Rahneva, PhD, has 3 successfully defended graduate students at FMI and, together with other colleagues, she is a supervisor of 4 doctoral students from FMI, two of whom have already successfully defended their dissertations.

Based on the general characteristics of the scientific-applied, applied, and educational and methodological contributions of Assoc. Prof. Olga Rahneva, PhD, it can be concluded that they are the personal work of the candidate or are mostly the result of teamwork with her participation and have an academic weight for the development of the professional field of this competition.

3. Critical remarks and recommendations

There are some inaccuracies in the citations, but given the significant excess of the number of citations from the minimum national and faculty requirements, as well as the fact that in the meantime new citations have been made to publications participating in the competition, this does not diminish the importance of this indicator.

CONCLUSION

The documents and materials presented by Assoc. Prof. Olga Rahneva, PhD, meet the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for the Application of the Act for the Development of the Academic Staff in the Republic of Bulgaria (RAADASRB), and the Law on the Development of the Academic Staff (LDAS) of PU "Paisii Hilendarski".

The candidate in the competition has presented a sufficient number of scientific papers published after the materials used in her defense of the educational and scientific degree "Doctor" and the academic position of "Associate Professor". In the works of the candidate there are original scientific and applied contributions, which have received national and international recognition, and a representative part of them are published in journals and scientific journals issued by national and international academic publishers. Her theoretical developments have practical applicability and some of them are directly oriented to the educational work. The scientific and teaching qualification of Assoc. Prof. Olga Rahneva, PhD, is unquestionable.

The candidate in the competition fulfills the minimum national requirements for holding the academic position "Professor" in professional field 4.6.

I have no doubts about any plagiarism committed in her publications submitted for review.

After getting acquainted with the materials and scientific papers presented in the competition and analyzing their importance and the scientific, scientific-applied, and applied contributions contained in them, I find it reasonable to give my **positive assessment** and recommend that the Scientific Jury prepare a report-proposal to the Faculty Council of the Faculty of Mathematics and Informatics for the election of Assoc. Prof. Olga Dobrova Rahneva, PhD, to the academic position of "Professor" at the University of Plovdiv "P. Hilendarski" in professional field 4.6 Informatics and Computer Science (Informatics – Distributed Systems and Applications).

25.02.2022

Reviewer:

/Assoc. Prof. Emil Doychev, PhD/