

OPINION

**on a competition for the occupation of an academic position “Professor”,
in professional field 4.6 Informatics and computer sciences
(Software Technologies - Network Programming, Cloud Technologies and Web Technologies)
for the needs of the Sofia University "St. Kliment Ohridski",
Faculty of Mathematics and Informatics (FMI),
announced in State Gazette No. 48/28.06.2022**

The opinion was prepared by: **Prof. Daniela Ananieva Orozova, PhD** - Trakia University, in my capacity as a member of the scientific jury for competition in professional field 4.6 Informatics and computer sciences (Software Technologies - Network Programming, Cloud Technologies and Web Technologies), according to Order No. ПД 38-519/ 25.08.2022 of the Rector of Sofia University.

Only one candidate submitted documents to participate in the announced competition: **Assoc. Prof. Milen Yordanov Petrov, PhD** Department of Software Technologies, Faculty of Mathematics and Informatics at Sofia University "St. Kliment Ohridski".

1. Application data

The documents submitted by the candidate in the competition correspond to the requirements of the Development of Academic Staff Act in the Republic of Bulgaria (ADASRB) and the Regulation for application of ADASRB (Decree No. 26 of February 13, 2019) and regulations on the terms and conditions for acquiring scientific degrees and holding academic positions in Sofia University "St. Kliment Ohridski".

Assoc. Prof. Milen Petrov, PhD meets the conditions of Art. 29(1).1 as he submitted the Diploma for the educational and scientific degree PhD - No. 34394, dated 22.07.2010.

Assoc. Prof. Milen Petrov, PhD meets the conditions of Art. 29(1).2 because he holds the academic position of associate professor by decision of the Faculty Council of the Faculty of Mathematics and Informatics, protocol No. 9/26.11.2012.

Assoc. Prof. Milen Petrov, PhD meets the conditions of Art. 29(1).3 as he presented a published monographic work (in Bulgarian): "Cloud, network and web technologies in technology-assisted learning", University Publishing House of TU-Sofia, ISBN: 978-619-167-488-6 (2022), (131 pages).

Assoc. Prof. Milen Petrov, PhD has a complete list of 82 publications, of which he participated in the competition with 13 publications, indexed in the scientific databases Scopus/Web of Science: 5 publications are in journals with SJR; 1 publication is independent; all are in English.

The presented "List of observed citations" includes a total of 85 citations, of which 22 in articles and monographs referenced and indexed in Web of Science and/or Scopus.

Assoc. Prof. Milen Petrov, PhD meets the conditions of Art. 29(1).4 because he has presented other original scientific research works, publications and other scientific and scientific-applied developments - participation in 7 international and 6 national scientific or educational projects.

Assoc. Prof. Milen Petrov, PhD meets the conditions of Art. 29(1).5 as it meets the minimum national requirements under Art. 2b, para. 2 and 3, respectively, to the requirements under Art. 26, para. 5. A report on the fulfillment of the minimum national requirements with the number of 806 points has been submitted.

According to the submitted documents, the candidate for the competition covers: 50 points by group of indicators A; 100 points by group of indicators B; 294 points by group of indicators G; 112 points by group of indicators D; 250 points by group of indicators E. Therefore, the minimum national requirements and the additional requirements from RIADAPRB for occupying the academic position "professor" in professional direction 4.6. Informatics and computer science are fully covered.

After a detailed review of the presented scientific works, I found that:

a) The scientific works meet the minimum national requirements (according to Article 2b, paragraphs 2 and 3 of the Development of Academic Staff Act in the Republic of Bulgaria) and respectively of the regulations on the terms and conditions for acquiring scientific degrees and occupying academic positions in Sofia University "St. Kliment Ohridski", for the academic position of "Professor" in the scientific field and professional direction of the competition.

b) The scientific works presented by the candidate do not repeat those from previous procedures for acquiring a scientific title and academic position.

c) There is no evidence of plagiarism in the scientific works submitted for the competition.

2. Characteristics and assessment of the candidate's teaching activity

"Documents for academic work" are presented with three references:

- a report prepared by the Academic Department of FMI for general academic and classroom employment by academic years and semesters, with ex. number 64/19.07.2022;

- list of publications, participation in conferences, projects and scientific guides, generated by the "Authors" system as of August 23, 2022;

- report on the indicators under Art. 122, para. 2 prepared by assoc. prof. Milen Petrov, for educational and teaching activities (art. 122, para. 2, item 1), research activity (art. 122, para. 2, item 2); other expert activity.

Assoc. Prof. Milen Petrov, PhD is a lecturer at the elective courses in the Master's programs "Java Network Programming" and "Data Modeling and Database Design". Introduces the new disciplines from 2012.:

- "Internet programming and web technologies" - a course dedicated to Java Enterprise technologies (J2EE, JavaEE5, Java6EE, JavaEE7, JavaEE8/JakartaEE9);

- "World-Wide Web", subsequently transformed into "Web technologies";

- "Application programming interfaces for working with cloud architectures with Amazon Web Services (AWS)".

In the period 2016 - 2022, he led lectures and exercises in English to foreign students under the Erasmus+ program. From the attached study load report for recent years, it appears that he annually does much more than the required study load. He is the graduate supervisor of 114 successfully defended master's theses from seven master's programs. He is the scientific supervisor of four doctoral students, one of whom has successfully defended, two doctoral students were assigned with the right to defend in 2022, and one current doctoral student. As of 2018, he is the head of the university's competitive programming teams.

Assoc. Prof. Milen Petrov, PhD is the head of the master's program "Protection of information in computer systems and networks" in direction 4.6. Informatics and computer sciences - since 2014 in Faculty of Mathematics and Informatics at Sofia University. From 2017 until now, he has been the deputy dean at FMI in charge of educational activities at the Master's College. From 2022, he was elected as a member of the Management Board of the NIS at the Sofia University "St. Kliment Ohridski".

He has 85 publications, of which 19 are indexed in Scopus, 16 are indexed in Web of Science, 5 are indexed in ACM, 4 are indexed in SpringerLink, 4 are indexed in IEEE eXplore. He has published one monograph (presented for the competition), one book chapter, 14 articles in scientific journals, 65 publications in proceedings of scientific conferences.

Assoc. Dr. Milen Petrov has taken part in 57 national and international scientific conferences with delivered reports. Since 2014, he has been the head of eight scientific projects at the Scientific Research Fund of the University of St. Kliment Ohridski". He is the head of two national projects at the DFNI of the Ministry of Education and Culture and is a member of the scientific team of eight more national projects and national programs. Participates in the scientific teams of 8 international

research projects and operational programs. In the scientific databases there is h-index Scopus: 3 and h-index.ResearchGate: 3.

Assoc. Dr. Milen Petrov is a member of national and international scientific organizations: ACM, IEEE, Oracle Academy, CISCO Academy, Informatics Europe, AWS Academy. He is the representative of Sofia University in the prestigious organization "Informatics of Europe".

3. Analysis of the scientific and applied scientific achievements contained in the materials for participation in the competition

The main contributions in the monograph and 13 research papers presented by the candidate for participation in the competition stem from the application of various cloud, network and web technologies in the following three thematic areas:

- Technology-assisted learning [№№ 1, 2, 5, 6, 7, 10, 13, 14];
- Security of personal data and applications [№№ 4, 9, 11, 12];
- Optimization of traffic information [№ 3].

The numbering corresponds to document 10B./16. List of publications of Prof. Dr. Milen Petrov submitted for participation in the competition.

The original scientific contributions in the publications submitted for participation in the competition are correctly described in Reference number 14 prepared by the candidate. I accept the results of the candidate's scientific research activities and contributions in the works with which assoc. prof. Milen Petrov participated in the competition formulated in the reference. The results have a scientific and scientifically applied nature and can be defined as the enrichment of an existing scientific field with new knowledge.

I was not able to find in the documents submitted to me information about what the applicant's contribution is to the collective publications presented. Therefore, I assume that the contributions of all authors are comparable and commensurate.

In my opinion, the aforementioned results characterize the candidate assoc. prof. Milen Petrov, as a well-established scientist with significant achievements in the fields of Network Programming, Cloud Technologies and Web Technologies.

4. Notes and recommendations

I do not find any gaps in the structuring of the content, accuracy and completeness in the description of the evidentiary material from a professional point of view, as well as in the design of the submitted documents for participation in the competition.

The documents show a successful and productive research activity. I would recommend the candidate further independent publication activity in IF journals.

5. Conclusion on the application

Having become acquainted with the materials and scientific works presented in the competition and on the basis of the analysis of their importance and the scientific and applied contributions contained therein, I confirm that the scientific achievements meet the requirements of the Development of Academic Staff Act in the Republic of Bulgaria, the Regulations for its implementation and the corresponding Regulations of the Sofia University "St. Kliment Ohridski", for the position of the candidate in the academic position of "Professor" in the scientific field and professional direction of the competition.

I hereby state my **positive** assessment of the application of Assoc. Prof. Milen Yordanov Petrov, PhD.

GENERAL CONCLUSION

Based on the above, I recommend the scientific jury to propose to the competent authority for the selection of the Faculty of Mathematics and Informatics at the Sofia University "St. Kliment Ohridski", to choose **Milen Yordanov Petrov** to occupy the academic position of "**Professor**" in the professional field 4.6. Informatics and Computer Science (Software Technologies - Network Programming, Cloud Technologies and Web Technologies), scientific field 4. Natural Sciences, Mathematics and Informatics.

10.10.2022

Opinion prepared by:

(Prof. Daniela Orozova, PhD)