

REVIEW

by **Prof. Ivan Ganchev Garvanov, DSc,**

member of a scientific jury appointed by Order No. 3-PK-68/01.12.2022 г. of the Rector of NBU and Decision of the Scientific Jury dated 06.01.2023, regarding the competition for the academic position “Associate Professor” in the field of higher education 4. Natural sciences, mathematics, and informatics, professional field 4.6 Informatics and Computer Science, published in a State Gazette No 84/21.09.2022

The only candidate for the competition is: **Chief Assistant Professor Metodi Georgiev Traykov, PhD.**

I. BRIEF BIOGRAPHICAL INFORMATION ABOUT THE CANDIDATE

Chief Assist. Prof. Metodi Traykov completed his higher education at the South-West University “Neofit Rilski”, Blagoevgrad, as follows: in 2012 completes a bachelor’s degree in Informatics, in 2013 completes a master’s degree in Informatics, and in 2017 г. successfully defends a PhD thesis and is awarded the educational and scientific academy degree Doctor of Philosophy (PhD) in Informatics, professional field 4.6 Informatics and Computer Science.

During the 2018-2019 academic year Metodi Traykov was a part-time Assistant Professor in the department "Informatics" of NBU. He was appointed full-time Assistant Professor in 2019, and in 2020 wins a competition for the academic position "Chief Assistant Professor" in the professional field 4.6 Informatics and Computer Science announced in the department "Informatics" of NBU.

II. ASSESSMENT OF THE SCIENTIFIC AND PRACTICAL RESULTS ACCORDING TO THE MINIMUM NATIONAL REQUIREMENTS AND THE REQUIREMENTS OF NBU

The candidate Chief Assistant Professor Metodi Traykov participated in the competition for the occupation of academic position "Associate Professor" with 8 scientific papers, as follows: a monograph in Bulgarian, consisting of 208 pages, 7 scientific articles indexed in Scopus and/or WoS, as 6 of them are with IF or SJR.

The applied scientific works are not used for the acquisition of the educational and scientific degree "Doctor" or for occupying other academic positions and are in the subject of the competition.

The candidate also provided a reference for 11 citations of 3 of his scientific papers. A quick search in Scopus shows that the mentioned 3 scientific papers of the candidate have more than 11 citations.

According to the Law For The Development Of Academic Staff In The Republic Of Bulgaria, the Rules for its implementation, and the specific rules for the Development of the Academic Staff of New Bulgarian University the candidate for the academic position "Associate Professor" must fulfill the minimum national requirements.

The performance of the indicators, according to their groups, for the occupation of the academic position "Associate Professor" is as follows:

About group "A", the candidate provides a copy of a diploma No 0292/11.09.2017 issued by the South-West University "Neofit Rilski", proving educational and scientific academy degree Doctor of Philosophy (PhD) in Informatics, professional field 4.6 Informatics and Computer Science.

About group "V" the candidate provides a monograph on the topic „The Protein Folding Problem – approaches, models and algorithms“, which is in the field of Bioinformatics. Also, he provides a copy of the deposit handover protocol of the monograph in the SS. Cyril and Methodius National Library, proving the existence of the monograph.

About group “G”, the sum of the indicators from 5 to 10 forms a total of 216 points out of the required 200 points. These points are formed by the provided 7 scientific papers, 6 of them are with SJR, and one is with IF in Web of Science and has Q4.

About group "D", the sum of points is 88 at the required 50 points. These points are obtained by 11 citations of 3 publications of the candidate.

According to the requirements of NBU, the candidate provides documents for the indicators in groups "Zh", "Z" and "I", respectively.

About group “Zh”, the sum of points is 80 at the required 50 points. These points are obtained by the membership of the candidate in scientific organizations, a translation of scientific texts, participation in programming courses, etc.

About group “Z”, the sum of points is 110 at the required 70 points. These points are obtained from authored study materials, work with students, preparation of students for participation in Olympiads, etc.

About group “I” the sum of points is 55 at the required 50 points. These points are obtained from the preparations of the candidate in committees, meetings, strict observance of office hours, etc.

From the above analysis, it has been established that the provided by Chief Assist. Prof. Metodi Traykov evidences exceed the minimal requirements specified in Law For The Development Of Academic Staff In The Republic Of Bulgaria, the Rules for its implementation, and the specific rules for the Development of the Academic Staff of New Bulgarian University for the occupation of the academic position “Associate Professor” in professional field 4.6 Informatics and Computer Science.

At a reference in Scopus and Web of Science (WoS) for the candidate's scientometric indicators, that I made on 16.01.2023, the following was found:

- The candidate has 17 publications, 89 citations, and h-index 5 in Scopus.
- The candidate has 8 publications, 28 citations, and h-index 4 in WoS.

III. MAIN CONTRIBUTIONS IN THE SCIENTIFIC AND SCIENTIFIC-APPLIED ACTIVITY OF THE CANDIDATE

I believe that the publications, provided by the candidate for review in the current competition, for the most part, are his personal work, despite the co-authorship in part of them. The presence of more than one author in the publications shows that he works successfully in a team and obtains high scientific results, which is confirmed by the journals, where the articles are published.

The contributions, presented by Chief Assist. Prof. Metodi Traykov, are of a scientific and scientific-applied nature. I accept the candidate's contributions as significant, real, and enriching the existing theory and practice. They are in the field of Bioinformatics and are related to molecular biology, physical chemistry, and mathematics. With the help of computer modeling are solved optimization tasks, related to the prediction of the three-dimensional structure of proteins (protein's tertiary structure), where the main aim is to maximize the number of contacts between hydrophobic amino acids that are not adjacent in the linear sequence (protein's primary structure). By maximizing the contacts between certain vertices in a special "lattice" graph, the effect of proteins folding and their visualization in the three-dimensional space is achieved.

IV. CRITICAL REMARKS AND RECOMMENDATIONS

I allow myself to recommend to Chief Assist. Prof. Metodi Traykov to work more with masters and PhD students in order to pass on his experience to the younger generation. I also recommend to the candidate to publish his lecture materials in a textbook or teaching aids as soon as possible.

V. CONCLUSION

After I familiarized myself with the materials and scientific works provided for the competition and also based on the made analysis of the significance of the materials and the scientific and scientific-applied contributions in them I confirm

that the scientific achievements meet the requirements of Law For The Development Of Academic Staff In The Republic Of Bulgaria, the Rules for its implementation, and the specific rules for the Development of the Academic Staff of New Bulgarian University. Chief Assist. Prof. Metodi Traykov satisfies the minimum national requirements in the professional field and no plagiarism has been found in the scientific works provided for the competition.

All this gives me a reason to give a categorically positive assessment of the candidacy of Chief Assist. Prof. Metodi Traykov and I suggest to the honorary members of the Scientific Jury to vote a proposal to the Council of the Faculty of NBU to elect Chief Assist. Prof. Metodi Traykov for the academic position “Associate Professor” in the professional field 4.6 Informatics and Computer Science

Date: 02.02.2023

Reviewer:



Prof. Ivan Garvanov, DSc,