

## OPINION

*from Assoc. Prof. Ph.D., Rossitza Ivanova Goleva, New Bulgarian University, Department of Informatics, professional field 4.6 Informatics and Computer Science on the scientific works for participation in a competition for the academic position of Associate Professor, in professional field 4.6. Informatics and Computer Science, announced in State Gazette 84/21.10.2022, with the only candidate Assistant Professor Ph.D. Metodi Georgiev Traykov*

According to the order of Order 3-PK-68/01.12.2022 of the Rector of NBU, I have been appointed to be a member of the scientific jury under the announced procedure and according to the minutes of the first meeting on 06.01.2023 I have been appointed to prepare an opinion.

### **1. Assessment of compliance with the minimum national requirements and the requirements of the New Bulgarian University**

The members of the scientific jury evaluate candidates for the academic position of "Associate Professor" according to the fulfillment of the conditions under Art. 57a of the Regulations for application of ZRAS in the Republic of Bulgaria (respectively Article 24 of the Law on the Development of Academic Staff in the Republic of Bulgaria and Article 56 of the Ordinance on the Development of Academic Staff of NBU). The fulfillment of these conditions is shown in the following table:

<b>Applicants for the academic position of "Associate Professor" must meet the following conditions:</b>	<b>Presented documents:</b>
Art. 56, para. 2, p.1 to have acquired an educational and scientific degree "Doctor"	Diploma No 292/ 11.09.2017 South-West University "Neofit Rilski", Blagoevgrad from 20.07.2016 on „Mathematical models and algorithms to predict the tertiary structure of proteins“
Art. 56, para. 2, p.2 not less than two years: a) to have held the academic position of "Assistant Professor", or "Chief Assistant Professor", or b) to have been a lecturer, including part-time, or member of a research team in the same or another higher school or scientific organization, or c) have practiced artistic activity, or d) have been specialists in practice and have proven achievements in their field	The applicant applies with his CV and list of courses taught at NBU that demonstrate enough capacity for his activities.
Art. 53, para. 2, p.3 to have submitted a published monographic work or equivalent publications in specialized scientific publications or evidence of relevant artistic achievements in the field of arts, which do not repeat the submitted for the acquisition of educational and scientific degree "Doctor" and the acquisition of scientific degree Doctor of Science ”.	The applicant presents a monography that does not repeat the work on the Ph.D. thesis. The topic is “The Protein Folding Problem – approaches, models and algorithms”. The monography shows broad analyses of the ways to create mathematical and numerical models and algorithms for the protein folding
Art. 56, para 2, p.4 to meet the relevant minimum national requirements and the requirements of NBU	There is a document applied that presents the conformance to the minimal national requirements for the position and the

	requirements of NBU. The applicant presents 7 publications that are equivalent to 216 points and cover completely the requirements.
Art. 56, para 2, p.5. not to have legally proven plagiarism in scientific works	There are no pieces of evidence for plagiarism related to this procedure.

The implementation of the minimum points in the groups of indicators for the academic position "Associate Professor", according to the specific requirements of the NBU, is as follows:

*Area 4. Natural Sciences, Mathematics, and Informatics, Professional field 4.6. Informatics and Computer Science*

Group of indicators	Content	Associate Professor (min. Points)	Presented by the candidate in the competition
A	Indicator 1	<b>50</b>	<b>50</b>
B	Indicator 2	<b>0</b>	
C	Indicators 3 or 4	<b>100</b>	<b>100</b>
D	A sum of indicators from 5 to 9	<b>200</b>	<b>216</b>
E	A sum of indicators from 10 to 12	<b>50</b>	<b>88</b>
F	A sum of indicators from 13 to 20	<b>0</b>	
G	A sum of indicators from 21 to the end (required by NBU)	<b>50</b>	<b>60</b>
H		<b>70</b>	<b>110</b>
I		<b>50</b>	<b>55</b>

## 2. Research activity and results

To meet the indicators of group C, the Applicant presents a monography that conforms to the requirements of the law and ordinance as listed in the table above. Seven publications are submitted to fulfill the requirements in the Group D. Six of the publications are indexed in Scopus and one in Web of Science. One of the publications has Impact Factor and is in Q4. i.e., it is counted in the score with 36 points. All other publications have SJR and are scored with 30 points each accordingly. For group E the candidate has attached data for 11 citations from a total of over 90 in Scopus and 17 in Web of Science. All 11 citations are formed from 3 publications of Dr. Traykov. All citations conform to the minimal requirements. For scores in the groups F, G, H, and I the candidate has submitted information that is far above the minimally required. Dr. Traykov has a significant impact on the education of programming in the Department of Informatics. The applied CV contains a list of publications that demonstrate serious work in the field of bioinformatics last 10 years. The works are recognized worldwide. Dr. Traykov has also had a significant impact on the organization of the International Conference on Computer Science and Education in Computer Science that is indexed in Scopus in 2022.

The report from the databases in Scopus and Web of Science shows the following scientometric indicators for the candidate:

- Scopus, h-index 5, 17 publications, 93 citations
- Web of Science, h-index 1, 2 publications, 17 citations

From the analysis made in this way it is concluded that for some of the groups of indicators, the candidate has significantly exceeded the defined minimum national requirements and the requirements of the New Bulgarian University.

### 3. Teaching and learning activities

From the presented reports it can be seen that the teaching activity of Chief Assistant Professor Dr. Metodi Traykov includes auditorial and training courses on programming, databases, data structures, discrete mathematics, algorithms and programming, automata and computability, competitive programming, etc. The applicant has very high evaluations from students and the faculty for his work. Dr. Traykov has published educational documents in Moodle with enough quantity and quality. Part of the educational documents is on bioinformatics.

Dr. Traykov has many diploma thesis students. He is an active member of the diploma thesis defense procedures and state exams. His work in education is fully relevant to the position of Associate Professor in the professional field 4.6. Informatics and Computer Science.

### 4. Administrative and Public Activities

Assistant Professor Ph.D. Metodi Traykov is a member of the Society of Mathematicians in Bulgaria. He is a member of the Programme Council of the Department of Informatics where he is responsible for the development of the content of the eight programs and different courses. He is responsible for the first-year students in the biggest programme on Informatics with approximately 200 students annually and prepares the topics for the State exams. Dr. Traykov is working well with students, coach the teams for programming for different competitions, and organizes competitions on programming. Thanks to his hard work the teams in the programming of the New Bulgarian University are scored usually among the first 5 teams in many competitions on programming.

Dr. Traykov is organizing and participating actively in the CSECS (Annual International Conference on Computer Science and Education in Computer Science) which is made in cooperation with Boston University, MA, United States. Thanks to his activities the last edition of the conference is indexed in Scopus.

### 5. Critical remarks and recommendations

I have no critical remarks about the candidate Assistant Professor Dr. Metodi Traykov. My recommendations are related to expanding the topic of publications, according to current thematic areas in the field of computer science.

### 6. Conclusion

Taking into account the fulfillment of all normative requirements, according to law for the development of the academic staff in the Republic of Bulgaria, the regulations for its application, as well as the Ordinance for the development of the academic staff of NBU, incl. the reports on the fulfillment of the minimum national requirements, the scientometric indicators from Scopus and Web of Science, and the additional indicators related to the teaching activity, it was established that the candidate fully satisfies the requirements for holding the academic position in the announced competition. **All this gives me enough reason to give a positive assessment and I propose to the scientific jury to vote on a proposal to the Academic Council of the New Bulgarian University - Sofia to choose Assistant Professor Dr. Metodi Georgiev Traykov for the academic position of "Associate Professor" in the professional field 4.6 "Informatics and Computer Science".**

Date 20 Feb. 2023

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