O P I N I O N

in a competition for the academic position of "**Associate Professor**" in: field of higher education 4. Natural Sciences, Mathematics and Informatics; Professional field 4.5 Mathematics (Mathematical Analysis and Research of Operations) for the needs of the Technical University - Varna, published in the State Gazette no. 61 of 23.07.2021 and on the website of the Technical University - Varna,

with the only candidate **Ch. Assistant Professor Diana Kirilova Nedelcheva, PhD**

Member of the scientific jury: **Assoc. Prof. Hristo Stefanov Kiskinov, PhD**,
Associate Professor at Plovdiv University "Paisii Hilendarski",
Faculty of Mathematics and Informatics, Head of the Department of Mathematical Analysis

1. General characteristics of the evaluation of the scientific and of the applied scientific research activity of the candidate

By order №639 / 21.10.2021 of the Rector of the Technical University - Varna I was appointed as a member of the scientific jury of the competition for the academic position "Associate Professor" at the Technical University - Varna, in the field of higher education 4. *Natural Sciences, Mathematics and computer science*; professional field 4.5 *Mathematics (Mathematical Analysis and Operations Research)*.

As a member of the scientific jury I have received all the necessary documents submitted by the only candidate Ch. Assistant Professor Diana Kirilova Nedelcheva, PhD. The documents are well designed and arranged. The presented monograph (100 points - B3), a book based on the dissertation (20 points - G6), six scientific publications in peer-reviewed and indexed in world-known scientific databases journals (240 points - G7), as well as evidence of 10 citations (76 points - E11), all not presented in other procedures, prove both the good research activity of the candidate and the fulfillment of the minimum national requirements for holding the academic position of associate professor in this field.

Here I will allow myself to comment on the difficulties in establishing whether the Technical University - Varna has additional requirements in direction 4.5. Mathematics and if so - what are they. Although the additional group of indicators J (minimum 30 points from the hours of lectures) formulated in the Regulations on the Terms and Conditions for Holding Academic Positions at TU-Varna does not apply to direction 4.5., the candidate has presented evidence that he fulfills them (319 points - J29). The Article 18 (3) of the same regulations states that candidates for associate professor "should meet the specific requirements of the relevant specialized universities or research institutes of BAS, with which there are signed agreements for mutual recognition of academic positions." The problems with this formulation are, firstly, that by law there are no longer specific but additional requirements, and secondly, that I have not heard of such contracts in the Republic of Bulgaria. I accept that the creator of these regulations had in mind the additional requirements of the Institute of Mathematics and Informatics (IMI) of BAS. The additional requirements of IMI of BAS for associate professor in field 4.5, exceeding the minimum national ones, include the need for 20 points from group E (participation in projects) and at least 5 articles with IF or SJR, which

requirements the applicant fulfills by participating in 3 national projects (30 points E10) and presented a total of 6 articles with IF or SJR.

2. Assessment of the pedagogical preparation and activity of the candidate

From the attached reference for the classroom employment of the candidate it can be seen that Ch. Assistant Professor Diana Nedelcheva, PhD has led lectures and / or seminars in the following lecture courses for bachelors and masters: Mathematics 1 and 2, High Mathematics 1, Mathematics, Applied Mathematics, Numerical Methods and Mathematical Statistics, Mathematical Statistics and Selected Chapters in Mathematics, which shows the high level of pedagogical training and active pedagogical activity of the candidate.

3. Main scientific and applied scientific contributions

The candidate has correctly defined his scientific contributions in two main directions. The first area is set optimization and there are [2], [3] and [5], the first two in impact factor journals (IF by Thomson Reuters), and the third in an impact rank journal (SCOPUS SJR). In the second direction - fixed point theory, are presented the monograph [1], for which there is a separation protocol for 90% participation of the candidate, the book based on the dissertation [8] and 3 more articles [4], [6], [7] in journals, all indexed in SCOPUS and having impact rank (SJR). I fully support what the candidate wrote in the attached report on scientific contributions.

I have not found "plagiarism" in the works of the candidate in the sense of ZRAS in the Republic of Bulgaria.

6. Significance of the contributions to the science and practice

The most objective criterion for the significance of the contributions in science and practice for a mathematician are the citations of his works. Diana Nedelcheva, PhD has a total of 17 known citations (not all of them participate in the competition), of which 16 in WoS and / or SCOPUS and one in MathSciNet, are an excellent indicator. It makes a very good impression that her works have been cited by various colleagues from all over the world, which unequivocally shows the serious scientific contributions contained in them.

From the presented materials it can be seen that the candidate satisfies all quantitative indicators of the criteria for holding the academic position of associate professor, laid down in the Law on Development of Academic Staff in the Republic of Bulgaria (RASRB), in the Regulations for the Implementation of this Low and in the Regulations on the Terms and Conditions for Holding Academic Positions at TU-Varna, as well as in the additional requirements of IMI at the Bulgarian Academy of Sciences.

7. Critical notes and recommendations

I have no significant critical notes. A minor omission in the documents submitted in my opinion are the missing ISSN-number of the journals in the attached documents, which makes it difficult to reviewers as well as the missing second page of document 06, but its content is understood by document 12. I will recommend to Diana Nedelcheva, PhD, to work so hard as she did and to continue expanding the thematic research.

CONCLUSION

Based on the presented scientific work, their significance and the scientific and applied scientific contributions contained therein, I give my positive assessment and recommend the Science Faculty Council of FITA to choose Ch. Assistant Professor Diana Kirilova Nedelcheva, PhD, for the academic position of "**Associate Professor**" in the Technical University - Varna in: field of higher education 4. *Natural Sciences, Mathematics and Informatics*; Professional field 4.5 *Mathematics (Mathematical Analysis and Research of Operations)*

21.12.2021   Signature: ....
/Assoc. Prof. Hristo Kiskinov, PhD/