

OPINION

**for the competition for occupation of the academic position „Associate professor”
in higher education area 4. Natural sciences, mathematics and informatics, professional field:
4.6 Informatics and Computer Science (programming and algorithms) ,
for the needs of Sofia University St. Kliment Ohridski (SU),
Faculty of Mathematics and Informatics (FMI),
announced in the State Gazette No. 52 / 02.07.2019 and on the web page of the SU and FMI**

**Member of the scientific Jury: Prof. Dr. Krassen Stefanov Stefanov,
Sofia University „St. Kl. Ohridski” - FMI**

I am presenting this opinion as a member of the Scientific Jury in the above mentioned competition, on the base of order № ПД 38-591 / 11.10.2019 of the Rector of SU, as well as on the ground of Decision of the Scientific Jury (Protocol № 1 from 21.10.2019). This opinion fully corresponds to the ZRASRB, Statute of MC for the application of ZRASRB, Statute for the development of the academic staff of SU.

Only one candidate has applied for participation in the announced competition: Chief Assistant Professor Nora Angelova Angelova, SU, FMI, Department “Computer Informatics”

I. General description of presented materials

1. Description of materials

I received the following documents as a member of the scientific jury: CV, copy of PhD Diploma, certificate for the length of service, list with scientific publications for participation in the competition, list of all scientific publications, list with citations, resumes of the publications, copies of the 23 publications presented for the participation in the competition, checklist for the fulfilment of the national minimal requirements to become Associate professor, reference for the original scientific results and achievements, declaration for lecture activities, and various declarations for the fulfilment of the requirements.

The candidate fulfils all the requirements stated in the ZRASRB, Statute of its implementation and statutes of SU.

The publications presented for the competition fully correspond to the thematic of the competition.

There is no plagiarism detected in relation to the scientific publications of the candidate.

2. Data about the candidate

The candidate graduated both as Bachelor and Master of Science in Computer Science from SU – FMI. She was working as part-time lecturer from 2012 and as a Chief Assistant Professor from 2017 at SU – FMI. She is also working as a Chief Software Engineer at the software company Astea Solutions Lmtd. She finished her PhD at the Institute of Biophysics and bio-medical engineering – Bulgarian Academy of Sciences, and successfully defended her PhD Thesis in Computer Science at 2017.

3. A general characteristics of the candidate's research and application activities

The whole number of the publications of Nora Angelova Angelova is 33. She presented 23 from them for the participation in this competition. Eight publications are in international journals with SJR.

Most of her publications have two, three or four co-authors.

I can conclude that quantity and quality of presented scientific publications is enough to satisfy all of the stated requirements.

Nora Angelova has participated in several national research projects. Most of her publications are closely related with her participation in these research projects and are based on the use of Intuitionistic Fuzzy Logic and Sets. She divided them in three different groups.

In the first group, named Generalized Nets, are publications 4, 5 and 6. In these publications the Generalized Nets are used for formal verification of programs and models. Most of the publications with numbers 1, 2, 9-13, 15-18, 20-23 are classified in the second group. In these publications the software tool IFSTool is used for studying of various statements from Intuitionistic Fuzzy Logic.

The publications 7, 8, 14, and 19, are classified in the third groups, and are related to the use of Intuitionistic Fuzzy Sets and indexed matrices for encountering of co-relations between various criteria.

There is also one not classified publication, related to the modification of the „Life“ 3D game, where two different life forms with 6 and 8 directions of movement are studied.

Most of publications are in English, in scientific journals indexed in the world data bases. The main conclusions are:

- a) The scientific works comply with the minimum national requirements with the total number of points per group of indicators significantly exceeded. They are also fully correspond with the additional requirements of the Sofia University “St. Kliment Ohridski” for the occupation of the academic position of "Associate Professor" in the scientific field and professional direction of the competition.

- b) The scientific papers presented by the candidate are of the years after the previous procedures for acquiring a scientific title and academic position, and as such do not repeat them.
- c) There is no plagiarism proven in the scientific works presented at the competition.

4. A general characteristics of the candidate's teaching activities

The candidate has more than enough teaching activities at SU – FMI, and as such fully conforms to all requirements.

5. Substantive analysis of the scientific and applied scientific achievements of the applicant, presented in the materials for participation in the competition

The presented publications have mainly applied character. Nine of them have a total of 16 citations. Most of these citations are from the same members of the scientific group, to which the candidate belongs, and who are co-authors in most of her papers.

The publications are of good quality, in English language and in journals with good dissemination through scientific community. There are enough publications in journals with SJR.

I could not find statement about the personal merits of the candidate in all publications with more authors, so I suppose that all authors have equal share.

6. Critical remarks and recommendations

I suggest to the candidate to enlarge the thematic of her publications and also to try different scientific journals. I also recommend to her to move out of Intuitionistic Fuzzy Logic and Sets and to prove her abilities in other relevant scientific fields.

And most importantly, to try to participate in more advanced international projects, especially such funded from EU.

7. Personal impressions from the candidate

I don't know the candidate in person, and as a consequence, I don't have any specific personal impressions.

8. 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 comply with the requirements of the ЗРАСРБ, the Regulations for its implementation and the corresponding Regulations of Sofia Uni-

versity "St. Kliment Ohridski "for the position of the candidate in the academic position "Professor" in the scientific field and professional direction of the competition.

In particular, the applicant satisfies the minimum national requirements in the professional field and no plagiarism has been found in the scientific papers presented at the competition.

I give my positive grade to the application.

II. GENERAL CONCLUSION

On the ground of all above mentioned facts and conclusions, and taking into account the standards expressed in the laws and statutes, I give positive vote for all presented materials from Dr. Nora Angelova Angelova. As the candidate fully satisfy all requirements of ZRASRB and the rest of normative documents, standards and statutes enumerated above, and even exceed most of the quantitative indicators, this gives me the conviction to state, that Dr. Nora Angelova Angelova is fully suited to take the position Associate Professor. So, I propose to the Honorable Members of the Scientific Jury to vote for the assignment of Dr. Nora Angelova Angelova to the academic position of Associate Professor in the higher education area 4. Natural sciences, mathematics and informatics, professional field: 4.6 Informatics and Computer Science (Programming and Algorithms).

28.11.2019 г.

Prepared this opinion: prof. D-r Krassen Stefanov