

OPINION

on the competition for awarding the academic position "Associate Professor" in
professional field 5.3 Communication and computer technology
announced in State Gazette 77/ 27.09.2022 г.

with candidate: Dr. Elisaveta Dimitrova Trichkova - Kashamova

by Assoc. Prof. Dr. Eng. Mariya Petrova Aleksandrova-Pandieva,
Technical University of Sofia, appointed as a member of the scientific jury
according to order 338/25.11.2022 г.

1. General description of the research and applied research activities of the candidate

For participation in the current competition, the only candidate Dr. Trichkova-Kashamova has provided materials in the various categories corresponding to the Higher Education Act, the Academic Staff Development Act in the Republic of Bulgaria, the Rules of the Bulgarian Academy of Sciences for the application of the previously mentioned acts and the Regulations for the specific conditions for awarding scientific degrees and for holding academic positions in the Institute of Information and Communication Technologies - BAS.

There are 25 publications provided, 12 of which are indexed in SCOPUS, including 12 which are single authored. Of most of the rest publications, Dr. Trichkova – Kashamova is leading (first) author. The materials are in the field of the competition and it can be concluded that they are mainly in the field of informatics and computer science with a specific application for sensor nodes and networks, smart solutions for process control and management, as well as for educational purposes. According to the presented materials I accept the scores, as compared to the required ones:

Criterion	Minimal required scores	Presented	Assessment
A	50	50	Meets
B (B4)	100	370	Over exceeds
G (G7, G8)	220	263	Exceeds
D (D12, D13, D14)	60	180	Exceeds
E (E18, E19)	20	110	Over exceeds

The overview shows that the minimum national requirements included in the national acts and in the relevant regulations of ICT-BAS are met, and in some cases the criteria are even over exceeded.

It should be noted that the entire work experience of the candidate has been gained at the Institute of Information and Communication Technologies, successively passing through the entire hierarchical career ladder from Programmer, through Research Associate, Junior Assistant and Chief, or Senior Assistant. Dr. Trichkova-Kashamova is active in various fields, both in Bulgaria and abroad. She demonstrates a capacity for teaching, in addition to research, which is evident from her participation in an educational course at the New Bulgarian University. Also, the

candidate constantly improves her qualifications, through trainings during several Erasmus/Erasmus + academic exchanges abroad (in UK and Romania).

2. Main scientific and scientific-applied contributions

One scientific contribution and three scientifically-applied ones are presented. I accept in substance the contributions stated by the candidate, while recommending an appropriate requalification of contribution 1, related to topological synthesis and structural improvement of a communication network to the group of the scientific-applied contributions.

The contributions include original solutions, or original development of problems in certain field of specific practical significance.

The contributions are within the topic of the competition and I believe that they are own original work authored by the candidate.

3. Significance of the contributions to the science and practice

The impact of the contribution is evidenced from the presented 23 citations (3 of the presented citations have been excluded from the total number of citations, as they are self-citations). 15 from the citations in the list are references in papers of researchers abroad, indexed in the world-recognized databases Scopus and WoS. The results have been validated in publications authored by Dr. Trichkova-Kashamov, which are indexed in Scopus. The candidate's participation in scientific projects, including international ones, which are on the subject of the current competition, is sufficient confirmation for the importance of the results.

The developed model for flows managing in networks and approaches for evaluating the effectiveness of information systems follow the modern standards in the field. In this aspect, the results are not just up-to-date, but also practically important for various spheres of life – for example, smart animal husbandry, traffic and transport systems management, and management of business processes.

4. Remarks and recommendations

Only three publications from the listed are in journals and the rest are conference reports in proceedings of the conferences. I recommend that the candidate increases her publication activity in journals with impact factor/impact rank, as the field in which she works is modern and allows obtaining of results suitable for such type of papers, especially regarding sensor networks, smart solutions and algorithms for data processing, Internet of things, etc.

Citations 10, 11 and 13 should not contribute to the formation of points under criterion D, as they are self-citations.

For future competitions, it would be good if there are official documents certified by the relevant institutions for reference, such as an up-to-date NACID reference for impact factor / SJR of the papers, number of citations, and a reference from IICT-BAS (or others) for project participations. For example, due to the lack of such a reference, it is not indicated that two of the papers on the International conference "Electronics - ET'21" are in proceeding, which, in addition to being indexed in SCOPUS, have also an impact rank of 0.11.

In their essence, the remarks do not intend to make less significant the candidate's work.

5. Conclusions

Based on the acquaintance with the presented research papers, their significance, the scientific and applied contributions contained in them, citations and participation in scientific projects, I find it is reasonable and justified to support the candidate.

In conclusion, I give a positive assessment of the application and propose to the esteemed scientific jury to award the candidate Dr. Elisaveta Dimitrova Trichkova-Kashamova with the academic position of "Associate Professor" on the announced competition in professional field 5.3 Communication and Computer Engineering.

12.01.2023
Sofia

Signature: ..
/Assoc. Prof

НА ОСНОВАНИЕ

ЗЗЛА

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