

OPINION

on the competition for awarding the academic position "Associate Professor" in professional field 5.3 Communication and computer technology announced in State Gazette vol. 21 / 15.03.2022

with candidate: Dr. Elena Nikolaeva Paunova-Hubenova

by Assoc. Prof. Dr. Eng. Mariya Petrova Aleksandrova-Pandieva, Technical University of Sofia, appointed as a member of the scientific jury according to order 135 / 17.05.2022

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

For participation in the current competition, the only candidate Dr. Paunova-Hubenova 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 26 publications provided, 16 of which are indexed in SCOPUS or Web of Science, including 5 with SJR indicator. 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 educational purposes. Two of the publications are single-authored and the others are in coauthorship. 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	165	Exceeds
G (G7, G8)	220	240	Exceeds
D (D12, D14)	60	162	Over exceeds
E (E18, E20, E22)	20	74	Over exceeds

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

2. Main scientific and scientific-applied contributions

Two scientific contributions and four scientifically-applied ones are presented. I accept the contributions claimed by the candidate, but recommend their appropriate reformulation, such as the inclusion of the contribution related to the modified and adapted Gunther model of the

software product life cycle to the scientific contributions of a methodological nature, and the analysis of trends in ICT devices and electronic resources in Bulgarian schools – should be moved to scientific and applied contribution. The main part of the contributions includes results related to research and conceptualization in e-learning, through modern methods and tools, adaptation of methods applicable in vocational e-learning systems.

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

3. Significance of the contributions to the science and practice

The importance of the contributions is evidenced by the 29 citations presented, 13 of which in world-recognized scientific databases, as well as where the results are approbated, namely in scientific publications with impact rank, indexed in Scopus and Web of Science. The importance of the results is evidenced by the candidate's participation in research projects, which are on the subject of this competition in a role of a project coordinator and as a member of the research team.

The applicability of the results can be extended by implementing them in the field of higher education, especially in specialized courses at the technical and medical universities, because the perception of the material in some cases is difficult for students. Problems related to the specialized training of foreign students from different countries are also solved – from logistical point of view is more convenient to study the profiling courses remotely. I see this as a potentially important effect on the education system in the higher education. In this aspect, the results are not only relevant but also promising for various fields of education.

It has not been declared by the candidate, but as a lecturer at TU-Sofia I have information that Dr. Paunova-Hubenova is excellent as a mentor to our students in the project "Student Practices", who have wonderful personal impressions of her work and her attitude to them. She provokes a willing in a number of students to explore the modern learning tools and to get into the methods of designing educational games for teaching purposes. In this way, she also builds a bridge between the University and the Academy, and this is one of the significant contributions of her work.

4. Remarks and recommendations

I have no significant critical remarks to the candidate. Somewhere, there are incomplete descriptions of the publications, for example it is not indicated where the conference was held, in Bulgaria or abroad (publications 7, 8 and 9 of list B4). Some of the publications were classified as conference reports, which reduced their weight, although one was subsequently published in a journal with SJR (publ. 10 of list B4) as the SJR indicator is in fact higher than that presented in the documentation, and the other has become a chapter of a book also with SJR (publ. 7 of the same list). 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, number of citations, and a reference from IICT-BAS (or others) for project participations and project managements. There is insufficient information about a contract with the municipality of Sozopol for the design of the transport plan of the city, so it is difficult to assess whether this project can be considered scientific.

In their essence, the remarks do not intend to make less significant the candidate's work, as they are of an editorial nature.

5. Conclusions

Based on the acquaintance with the presented scientific papers, their significance, the scientific and applied contributions contained in them, citations and participation in scientific projects, I find it is 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. Elena Nikolaeva Pauniva-Hubenova with the academic position of "Associate Professor" on the announced competition in professional field 5.3

Communication and Computer Engineering.

HA OCHOBAHNE

06.06.2022 Sofia

Signature: /Assoc. Pro

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