

REVIEW

for Associate Professor **Tatiana Vladimirovna Atanasova**, PhD
on a competition for the academic position "**professor**"
in a professional field 4.6 Informatics and computer sciences, specialty "Informatics",
announced in SG no. 103/12.12.2023.
Reviewer: Acad. **Ivan Petkov Popchev**, BAS.

Pursuant Art. 4 para. 2 of ADASRB and decision of the Scientific Council of IICT-BAS (protocol No. 1 of 24.01.2024) by order No. 41/09.09.2024 of the Director of the Institute of Information and Communication Technologies – Bulgarian Academy of Sciences corresponding member S. Margenov I have been appointed as a member of the Scientific Jury in the competition for the academic position of "**Professor**" in the professional field 4.6 Informatics and computer sciences - specialty "Informatics", announced in State Gazette issue 103/12.12.2023 for the needs of the "Modeling and Optimization" section.

As a reviewer, I have received all documents submitted for participation in the competition.

According to ADASRB, the Rules for the implementation of the ADASRB and the Regulations of the specific conditions for acquiring scientific degrees and for holding academic positions at IICT-BAS, the candidates for professor must meet certain conditions.

Art. 29(1) Candidates to take the academic position "Professor" shall meet the following conditions:

1. have acquired an educational and scientific degree "Doctor" ...;
2. have held the academic position of "Associate Professor" in the same or another higher school or scientific organization for not less than two academic years ...;
3. have presented a published monographic work or equivalent publications in specialized scientific issues ..., which do not reproduce those submitted for awarding the educational and scientific degree "Doctor", the scientific degree "Doctor of Science" and for holding the academic position "Associate Professor";
4. have presented other original scientific research works, publications, inventions and other scientific and scientific-applied developments or artistic creative achievements, which are evaluated as a whole;
5. to meet minimum national requirements under Art. 2b, para. 2 and 3, and the requirements under Art. 2b, para. 5, respectively;

6. to have not plagiarism proven as per legally established order in the scientific works.

Assoc. Prof. T. Atanasova PhD **meets the conditions under Art. 29(1).1** as she presented the Diploma for the educational and scientific degree "Doctor" No. 27553, 31.10.2001.

Assoc. Prof. T. Atanasova PhD **meets the conditions under Art. 29(1).2** according to the presented document No. 138/05.02.2024, signed by Corr. Member S. Margenov - Director of IICT-BAS, with which it is confirmed that she has held the academic position "Associate Professor" for 20 years 09 months.

Assoc. Prof. T. Atanasova PhD **meets the conditions under Art. 29(1).3** as she has presented 3 equivalent publications in specialized scientific issues..., which do not reproduce those submitted for awarding the educational and scientific degree "Doctor", ... for occupying the academic position "Associate Professor".

Assoc. Prof. T. Atanasova PhD has submitted a "List of publications", which includes **162 publications** and a "List of publications for participation in a competition acquiring for the academic position of "Professor", which includes a total of **20 publications**.

A brief analysis of these publications showed the following:

- 4 publications are in journals with **IF of WoS and SJR** (№ 1-IF-Q1, SJR; № 2-IF - Q2, SJR; №7- IF-Q1, SJR; №16-IF, SJR);
- 10 publications are in journals or series with **SJR** (№№ 3, 5, 6, 9, 11, 12, 14, 15, 17, 19);
- 6 publications are in conference proceedings (№№ 4, 8, 10, 13, 18, 20);
- 1 publication is **single-authored** in English (№ 3).

The presented "**List of citations** (1999-2023)" includes 366, of which **47 citations in Scopus of publication №16 and 21 citations in Scopus of №7**.

Assoc. Prof. T. Atanasova was the supervisor of **four successfully defended doctoral students**, all of whom are at IICT-BAS.

Assoc. Prof. T. Atanasova PhD **meets the conditions of**

- **Art. 29(1).4** as she has presented **17 original scientific research works and other scientific and scientific-applied developments - participation in 4 international and 4 national projects;**
- **Art. 29(1).5** as she **meets the minimum national requirements** under Art. 2b, para. 2 and 3, and respectively the requirements under Art. 2b, para. 5 and the **requirements of IICT-BAS**. The reference for the fulfilment of the requirements with the number of **1304 points** was presented, which is **186% fulfilment of the requirements of IICT-BAS;**
- **Art. 29(1).6** as there is no legally proven plagiarism in the scientific works.

The materials for the competition contain "**Abstracts of the Scientific Works**" in Bulgarian and English languages.

According to Art. 29(3) of the ADASRB, the candidates in the competition submit a "**Reference for the original scientific contributions**". Assoc. Prof. T. Atanasova PhD has submitted "**Reference for the original scientific and scientific-applied contributions**" in three thematic directions. The **contributions** are: 5 scientific and 10 scientific-applied.

Briefly, the contributions can be presented as follows:

1. **Intelligent system** for monitoring certain parameters
2. **Multidimensional classification**, based on data processing and machine learning in a cloud environment
3. Scalable IoT Architecture **Model**
4. **Methods** for collecting and processing heterogeneous data
5. Cognitive modeling **Approach**

Educational and teaching activities (after Associate Professor) is as follows

- At the **Higher School of Telecommunications and Posts - Sofia**, according to a certificate signed by Associate Professor Dr. Plamen Pavlov, Associate Professor T. Atanasova was a teacher in five disciplines (2010-2016).
- At **Southwestern University "Neofit Rilski" - Blagoevgrad**, Technical Faculty, according to note No. 166/17.12.2019 signed by Assoc. Prof. Eng. Andreeva, Assoc. Prof. Tatiana Atanasova PhD was a teacher in 2017-2018 on "Data transmission and computer communications" in a bachelor's course, and "NGN - networks of the next generation" and "Digital communications" - in a master's course.

The world's scientific databases provide the following **summarized "scientometric image"** for the whole work of Assoc. Prof. T. Atanasova PhD.

Web of Science: 28 publications, 73 sum of times cited, 66 citing articles, **h-index 4**, verified peer reviews: 27

Scopus: 52 Documents, 160 Citations without self citations of all authors, **h-index 7**

Google Scholar: Цитирания 593, **h-индекс 12**, i10-индекс 15

Researchgate: 608.6 Research Interest Score, 363 Citations, **h-index 9**

ACM Digital Library: 3 Publications

IEEEXplore: 12 Publications, 15 Citations.

The "**scientometric image**" shows a successful and productive activity. The reviewer believes that elements of the "scientometric image" can be subject to self-analysis and research guidelines.

My personal impressions of the entire work of Assoc. Prof. T. Atanasova are extremely positive.

CONCLUSION

All conditions according to ADASRB, the Rules of the implementation of the ADASRB and the Regulations of the specific conditions in the IICT-BAS has been fulfilled and I give a definite **positive** evaluation for the selection of Assoc. Prof. Tatiana Vladimirovna Atanasova PhD in the competition for the academic position of "Professor" in professional field 4.6 Informatics and Computer Sciences, speciality "Informatics".

I strongly recommend to the Scientific Jury to unanimously propose to the Scientific Council of IICT-BAS to select Associate Professor Tatiana Vladimirovna Atanasova PhD for the academic position "Professor" in professional field 4.6 Informatics and Computer Sciences, speciality "Informatics".

March 13, 2024

Sofia

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