

OPINION

by acad. Ivan Petkov Popchev, BAS
for Assoc. Prof. Irina Alexandrovna Radeva, PhD
in a competition for the academic position of Professor

4.6. "Informatics and Computer Science", special. "Computer Science (Blockchain Technologies and Models)",
announced in SG No. 87/15.10.2024.

Pursuant Art. 4 para. 2 of ADASRB and decision of the Scientific Council of IICT-BAS (protocol No. 1 of 1 of 17.12.2025) by order No. 312/13.12.2024 of the Director of the Institute of Information and Communication Technologies - BAS 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 (blockchain technologies and models)", announced in SG No. 87/15.10.2024 for the needs of Intelligent Systems Department - IICT - BAS.

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 for the academic position of professor shall meet the following conditions:

1. to have obtained a doctoral degree...;
2. have held the academic post of Associate Professor in the same or another higher education institution or scientific organisation for at least two academic years... ;
3. to have submitted a published monographic work or equivalent publications in specialized scientific journals ... which do not repeat those submitted for the degree of Doctor of Education and Science, the degree of Doctor of Science and the academic position of Associate Professor;
4. have submitted other original research works, publications, inventions and other scientific and applied developments or artistic achievements, which are evaluated in aggregate;
5. meet the minimum national requirements referred to in Article 2b(2) and (3) and Article 2b(5) respectively;
6. have no legally proven plagiarism in scientific works.

(3) Candidates are required to submit a statement of fulfilment of the minimum national requirements under Article 2b (2) and (3), respectively, of the requirements under Article 2b (5), along with a statement of original scientific contributions. The relevant evidence specified in this Act, in the regulations of its implementation and in the regulations of higher education institutions and scientific organisations must be attached to this statement.

Assoc. Prof. I. Radeva, PhD **meets the conditions under Art. 29(1).1** as she has submitted Diploma for the educational and scientific degree "Doctor" No. 000213/08.11.2012.

Assoc. Prof. I. Radeva, PhD meets the conditions under Art. 29(1).2, as she has submitted an official note No. 728/06.11.2024, signed by Art. C. Margenov - Director of IICT-BAS, which assures that she has 06 years and 05 months as Associate Professor.

Assoc. Prof. I. Radeva, PhD meets the conditions under Art. 29(1).3 as she has submitted 3 equivalent publications in specialized scientific journals..., which do not repeat the ones submitted for the PhD, ... for the academic position of Associate Professor.

Assoc. Prof. Irina Radeva, PhD has submitted a "List of scientific publications for participation in the competition for the academic position "Professor"", which includes a total of 28 publications.

A brief analysis of these publications shows the following:

- 3 publications are in journals with IF and SJR (No. 22 - IF-Q2 SJR, 23 - IF-Q2 SJR, 26 - IF-Q2 SJR);
- 3 publications are in SJR journals (No. 7 - Q3, 9 - Q2, 17 - Q2);
- 1 publication is a book chapter (No. 1 - SJR Q4);
- 6 publications are in journal (No. 2, 3, 4, 5, 13, 18);
- 13 publications are conference papers in Scopus (No. 6, 9, 10, 11, 12, 14, 15, 16, 19, 20, 21, 24, 25)
- 2 publications are chapters of collective monographs (No. 27, 28);
- 3 publications from an academic publishing house are independent (No. 18, 27, 28);
- 4 publications (No. 3, 4, 27, 28) are in Bulgarian.

The "List of citations for the period 2019 - 2024" is presented - 140 citations in Web of Science and/or Scopus.

Assoc. Prof. I. Radeva, PhD meets the conditions of:

- **Article 29(1).4** as she has submitted 29 original research papers and other scientific and applied developments - participant in 18 national and 4 international projects, of which she is the leader of 7;
- **Article 29(1).5** as she meets the **minimum national requirements** under Article 2b(2) and (3), Article 2b(5) and the requirements of the IICT-BAS respectively. A statement of compliance with the requirements has been submitted with 1815 points, which is **159.29 % compliance with the requirements of the IICT-BAS**;
- **Art. 29(1).6** as no plagiarism in scientific works has been legally proven.

Pursuant to Article 29(3) of the ADASRB, the candidates in the competition shall submit a "Statement of Original Scientific Contributions". Assoc. Prof. Dr. I. Radeva, in accordance with Art. 10(1) of the "Regulations on the Specific Conditions for Obtaining Scientific Degrees and for Holding Academic Positions at IICT – BAS" presented a "Statement on Original Scientific, Scientific-Applied and Applied Contributions" in a volume of 8 pages with **4 original scientific contributions, 4 original scientific-applied contributions, and 2 original applied contributions.**

Briefly, contributions can be presented with their corresponding publications by no. and/or number of citations (Scopus and/or Wos).

A. Original scientific contributions:

- A.1. Models for decentralized blockchain applications (Nos. 8, 14, 15/1).

- A.2. Methods for identification and interpretation of threshold values in InterCriteria Analysis (No. 1-SJR-Q4/4).
- A.3. Multicriteria selection of blockchain software under uncertainty (No. 9-SJR Q2/8)
- A.4. Automated evaluation with NLP metrics of Retrieval-Augmented Generation (RAG) for large open-source language models (LLMs) (Nos. 25, 26 IF - SJR - Q2/3).

B. Original scientific and applied contributions”

- B.1. Risk management models and procedures (Nos. 2/2 , 3 , 4/2 , 6/2, 11, 13/6).
- B.2. Applications of blockchain technologies and models in smart agriculture (Nos. 10/4 , 14 , 15/1 , 17-SJR-Q2/5 , 19/2 , 23-If-SJR-Q2 , 28).
- B.3. Data and event traceability with blockchain technologies (Nos. 7-SJR-Q3/1, 12/5, 16/4, 17-SJR-Q2/5).
- B.4. Integration of smart contracts for decentralized data exchange (Nos. 22-IF-SJR-Q2/6, 24).

C. Original Applied Contributions

- C.1. Platform for data exchange in smart agriculture (Nos. 19/2 , 20, 21/3 , 22-IF-SJR-Q2/6, 23, 24, 28) ;
- C.2. A web application for testing Retrieval-Augmented Generation with large language models (Nos. 25, 26 IF - SJR - Q2/3).

In the autobiography of Assoc. Prof. I. Radeva, PhD is marked teaching activity as:

- **Lecturer** at New Bulgarian University, Department of Business Administration, Master's Program in Financial Markets and Instruments and Money and Capital Markets from 2001-2010.
- **Associate professor at Trakia University** - Stara Zagora, Faculty of Economics, preparation of curricula in the subjects "Validation and verification of software systems", "Software architectures", "Internet-based technologies" from 2020 to date.

The world scientific databases define the following **generalized "scientometric profile"** of the overall work of Assoc. Radeva:

- **Web of Science:** 11 Total Documents, 10 Web of Science Core Collection publications, 52 Sum of Times Cited, 48 Citing Articles, **h-index 5**;
- **Scopus:** 30 Documents, 208 Citations by 136 documents, **h-index 9**;
- **Google Scholar:** 489 citations, **h-index 14**, i10-index 23;
- **Researchgate:** Research Interest Score 294.5, Citations 402, **h-index 13**;
- **IEEEExplore:** 13 Publications, 51 Citations .

The "**scientometric profile**" demonstrates sustainability, performance and international recognition.

My personal impressions of Assoc. Prof. Irina Radeva, PhD are extremely positive, which gives me full confidence in her abilities to present the "**Doctor of Science**" as a work with theoretical generalizations and solutions to major scientific and applied problems with significant original contributions to science.

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** for the selection of Assoc. Prof. Irina Alexandrovna Radeva. PhD for the academic position of "Professor" in professional field 4.6. "Informatics and Computer Sciences", specialty "Informatics (Blockchain Technologies and Models)".

I propose that the Scientific Jury unanimously vote to recommend to the Scientific Council of IICT-BAS to elect Assoc. Prof. Irina Alexandrovna Radeva, PhD for the academic position of "Professor" in professional field 4.6. "Informatics and Computer Sciences", specialty "Informatics (Blockchain Technologies and Models)".

Sofia,
20.12.2024

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