

STATEMENT

in competition for the academic position of Associate Professor

Field of higher education: 5. Technical sciences,

Professional direction: 5.3 Communication and computer technology,

announced in State Gazette 77/27.09.2022.

with only one candidate: assistant professor PhD Elisaveta Dimitrova
Trichkova-Kashamova.

Member of the scientific jury: Prof. PhD Nayden Nedkov Chivarov - ИИСТ-БАС

1. General characteristics of the candidate's research and applied scientific activities

One candidate - Elisaveta Dimitrova Trichkova-Kashamova from the Institute of Information and Communication Technologies-BAS - participated in the competition. The candidate has graduated as an engineer (Master) at the Chemical - Technological and Metallurgical University - Sofia in 2005. In 2014 she defended her PhD thesis at ИИСТ - БАС on "Process Optimization in Information Systems". Since 2015 she is a senior assistant professor at the Institute of Information and Communication Technologies.

The research activity of the candidate is entirely in the field of the competition. The candidate fully meets the national minimum requirements, as well as those of the Institute of Computer Science-BAS for the academic position of Associate Professor, as follows:

Indicator A (50 points out of the required 50 points) - a diploma for PhD from the Bulgarian Academy of Sciences, ИИСТ-БАС dated 02.10.2014, diploma □000473

Indicator C (370 out of the required 100 points) - the candidate has submitted 10 scientific publications in journals that have been refereed and indexed in world-renowned databases WoS or Scopus.

Indicator D (263 out of the required 220 points) - the candidate has submitted publications according to indicators **D8- 13**, of which 2 are refereed and indexed in world-renowned databases WoS or Scopus, and 11 in other international and national publications.

Indicator E (158 out of the required 60 points) - the author's citation record for group **E** is accurate and detailed, but there are 3 self-citation included that I don't acknowledge. Citations visible in WoS or Scopus, as well as in national journals, are presented.

Indicator F (110 out of the required 20 points) - The applicant has participated in 5 national and 3 international projects as a member of the team.

2. Main scientific and applied contributions

I accept all the contributions presented in the applicant's report and evaluate them positively. They can be evaluated mainly as scientific and applied and can be summarized as follows:

- A topological synthesis has been implemented and an optimal solution for technological and structural improvement of a communication network through modeling and management of information flows has been determined.
- The potential of different types of modern systems and technologies for the application of intelligent management solutions in the livestock sector is explored.
- Methods, approaches and tools for modeling, execution, monitoring and analysis of business processes are studied and a technological solution for automation in information activities and services using Workflow technologies is developed.
- An approach for quantitative assessment of the quality and effectiveness of information systems in different subject areas is developed.

All contributions are in the field of the competition. The contributions are formulated on the basis of what the author has done and faithfully reflect what has been achieved.

3. Significance of contributions to science and practice

It makes a good impression that the candidate's contributions are focused on the use of information and communication technologies for solving real problems in the field of intelligent husbandry control, automation of information activities and services, flow control models in networks, algorithms for moving emergency vehicles in a busy road environment, applying IoT devices for data collection and decision-making and business process management in various subject areas. In this field Elisaveta Trichkova-Kashimova has received recognition not only at home but also abroad. This is confirmed by the submitted 23 publications, of which 12 are independent, as well as by 14 citations of her scientific works in WoS or Scopus and 9 in national publications.

4. Critical comments and recommendations

I found no significant inaccuracies or errors in the scientific papers. Nevertheless, there are some shortcomings, technical errors, omissions, incompleteness, etc., the most characteristic of which are:

-In the self-report on the contributions they are presented in a very summarized form.

- No separation protocols for the contributions in the evaluated papers have been presented and therefore I believe that the authors have equal contributions.

- It would be good to protect some of the scientific and applied solutions and results with patent applications.

- I would recommend a broader participation of the candidate in research projects on the topic of the competition as project leader(s) in national and European scientific programs such as the National Research Fund, the National Innovation Fund, Horizon Europe, etc.

In spite of the critical remarks and shortcomings (which are not significant for the overall assessment), I believe that the formulated solutions and contributions are proof that the candidate is fully prepared for the academic position of Associate Professor.

CONCLUSION

In conclusion, I can say that the candidate has fulfilled the requirements for the academic position of Associate Professor according to the Law on the Academic and Research Degrees, the Regulations for its implementation and the RULE OF ORDER for the Acquisition of Scientific Degrees and for Holding Academic Positions in IICT- BAS. This gives me a reason to recommend to the esteemed scientific jury to positively evaluate the scientific works under the competition and to propose to the Scientific Council of IICT to elect chief assistant professor Elisaveta Dimitrova Trichkova-Kashamova to take the academic position of Associate Professor in the professional field 5.3. Communication and Computer Engineering in the department "Distributed Information and Control Systems" of the Institute of Information and Communication Technologies - BAS.

Date: 20.01.2023

НА ОСНОВАНИЕ

ЗЗЛА