### OPINION

### by Prof. Lyubka Atanasova Doukovska, PhD, DSc

from the Institute of Information and Communication Technologies,
at the Bulgarian Academy of Sciences,
on the Competition for the academic position "**Professor**",
under the Scientific Field: 4. Natural Sciences, Mathematics and Informatics,
the Professional Area: 4.6. Informatics and Computer Sciences,
the Scientific Specialty: 01.01.12. Informatics (Information Modeling),
for the needs of the Institute of Mathematics and Informatics - BAS,
announced in State Gazette No. 98/13.12.2019

### with a participant - Associate Professor Zlatinka Svetoslavova Kovacheva, PhD

In accordance with Order No. 36/05.02.2020 of the Director of the Institute of Mathematics and Informatics - BAS, I was included in the Scientific Jury of the competition for occupation of the academic position "Professor" in the Scientific Field 4. Natural Sciences, Mathematics and Informatics, the Professional Area 4.6 Informatics and Computer Science, the Scientific Specialty 01.01.12. Informatics (Information Modeling), announced in the State Gazette, Issue 98 of 13.12.2020, for the needs of the Institute of Mathematics and Informatics - BAS, with the sole participant in the competition - Associate Professor Zlatinka Svetoslavova Kovacheva, PhD.

## I. General information about the applicant.

**Zlatinka Svetoslavova Kovacheva** was born on July 26, 1958 in the town of Sofia. She completed her master's degree in 1981 at the Faculty of Mathematics and Mechanics at the Sofia University "St. Kliment Ohridski" with MSc thesis titled - "Fundamentals of Cybernetics and Control Theory". She obtained her PhD degree at the

Technical University - Sofia in 1987, with a PhD thesis titled – "Automated system for spelling errors in Bulgarian language texts".

In 1981, she was hired as a "mathematician" at the Central Institute of Computing and Technology. From 1987 to 1996, she was a researcher at the Institute of Information, Communication and Automation Systems. From 1996 to 2003 she was an Assistant Professor at the Center for Information Technologies in Communications. Since 2003 she has been a lecturer at the Higher School of Telecommunications and Post. With Minutes No. 5 of 29.03.2004, the Higher Attestation Commission of the Council of Ministers of the Republic of Bulgaria awarded her the academic title of "Associate Professor" in the scientific specialty 02.21.07. "Automated Information Processing and Control Systems". From 2005 to 2018 she was a lecturer at the Sultanate of Oman, and subsequently at Sultan Qaboos University, Muscat; Higher College of Technology, Muscat and Middle East College, Muscat. From 2019 she was appointed Associate Professor in the Department of Mathematics at the University of Mining and Geology "St. Ivan Rilski". From 2018 she is part of the scientific staff of the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences.

## II. General characteristics of the submitted documents and works.

As a member of the Scientific Jury I have received the following documents:

- 1. Order No. 36 of 05.02.2020 of the Director of the Institute of Mathematics and Informatics BAS.
- 2. Application to the Director of the Institute of Mathematics and Informatics BAS for admission to the competition.
  - 3. Professional CV in European form.
  - 4. Diploma of the MSc degree.
  - 5. Diploma of the PhD degree.
  - 6. Common list of publications.

- 7. List of publications for participation in the competition.
- 8. A self-signed reference to the original scientific contributions of to the works submitted for the competition participation.
- 9. Abstracts of the publications submitted for participation in the competition in Bulgarian language and in one of the languages traditionally used in the relevant scientific field.
  - 10. Copies of the publications under item 7.
  - 11. Common citations list.
  - 12. List of citations submitted for participation in the competition.
  - 13. Copy of the State Gazette No. 98/13.12.2019 announcing the competition.
- 14. Certificate of internship in the specialty in accordance with the requirements of Art. 29 para 1 item 2 of the *Development of Academic Staff Act in the Republic of Bulgaria*.
  - 15. Certificate of the academic position "Associate Professor".
- 16. Other documents at the applicant's discretion, such as a reference for lectures / exercises read, a list of textbooks / e-lectures issued a list of research projects with the applicant's guidance or contributions, certificates and more.
- 17. Information on a model for implementation of the minimum national requirements under Art. 2b, # 2 and # 3 and # 5 of the *Development of Academic Staff Act in the Republic of Bulgaria*, as well as the minimum requirements of the Institute of Mathematics and Informatics BAS, to which the necessary evidence is attached (Appendix 2.1).

### 18. Declaration (Annex 3.1).

According to the requirements of the *Development of Academic Staff Act in the Republic of Bulgaria* and the specific requirements in the Act's Institutional Regulation, the candidates for occupying the academic position of "Professor" must meet the following conditions, regulated in Art. 29. (State Gazette issue 81 of 2010 - Decision No. 11 of 05.10.2010 of the Constitutional Court of the Republic of Bulgaria under cadastral

plot No. 13/2010; amend in full, issue 101 of 2010; amend. and supplement, issue 30 of 2018, effective 05.05.2018) (1):

- 1. Have acquired the educational and scientific PhD degree;
- 2. Have held the academic position of "Associate Professor" at the same or another higher education institution or scientific organization for at least two academic years or at least five years;
- 3. Have submitted published monographs or equivalent publications in specialized scientific editions that do not repeat the ones submitted for the PhD degree and for the academic position of "Associate Professor";
- 4. Have submitted other original research papers, publications, inventions and other scientific and applied developments that are evaluated as aggregate;
- 5. To comply with the minimum national requirements under Art. 2b, # 2 and # 3, respectively, of the requirements of Art. 2b, # 5;
  - 6. Not to have plagiarism proven in the statutory order in scientific works.
- (3) Applicants shall submit a report on the fulfillment of the minimum national requirements under Art. 2b, # 2 and # 3, respectively, of the requirements of Art. 2b, # 5, and a reference to the original scientific contributions, to which the relevant evidence set out in this Act, in the regulation for its implementation, and the regulations of higher schools and scientific organizations.

# III. General characteristics of the applicant's scientific, applied and teaching activities.

According to the submitted author's reference, Zlatinka Svetoslavova Kovacheva participated in the competition with thirty-two publications. Of these, four are with Impact Factor [4, 10, 22, 32], six are with SCImago Journal Rank [5, 14, 17, 18, 23, 24], ten are indexed in WoS, eleven are indexed in Scopus, eleven are indexed in MathSciNe, eight are indexed in Zentralblatt and one is indexed in ACM. The publications submitted

were not used in the procedures for obtaining the PhD degree and the scientific title of "Associate Professor". All publications are in the field of competition.

The submitted by the candidate publications are original and I do not know of plagiarism.

I accept the author's reference for the contributions in the works with which Zlatinka Svetoslavova Kovacheva participated in the competition, the results being scientific, scientifically applied and applied in nature and can be defined as enrichment of an existing scientific field with new knowledge.

The citation report presented by Zlatinova Svetacheva Kovachev shows a total number of 212 citations, with 202 citations in WoS and Scopus bases, and 10 in dissertations or abstracts abroad. It is important to note that publication [10] has 181 noted citations. I agree that this number is at the time of submission of the competition documents and no new citations have been included.

The enclosed reference about the teaching activity of Zlatinka Svetoslavova Kovacheva shows that she has developed curricula and lecture courses in five higher education institutions, of which four courses are lectures and exercises and one course of exercises at the University of Mining and Geology "St. Ivan Rilski", one course of exercises at the Technical University - Sofia, four courses of lectures and exercises at the Higher School of Telecommunications and Post - Sofia, six courses of lectures and exercises at Higher College of Technology - Muscat and five courses of lectures and exercises at Middle East College - Muscat.

Zlatinka Svetoslavova Kovacheva has been a member of a team of eleven national projects and was the head of seven.

### IV. Critical notes and recommendations.

I have no critical comments on the materials submitted by the applicant for the participation in this competition. I would like to recommend to Assoc. Prof. Zlatinka Kovacheva to focus her efforts in working with PhD students in order to pass on her rich

scientific experience to the next generation of Bulgarian researchers in the field of information technologies.

### V. Conclusion.

In conclusion, I agree that the requirements of the Law for the *Development of Academic Staff Act in the Republic of Bulgaria* and the specific requirements in the Act's Institutional Regulations for its implementation, the Rules for the conditions and the order for acquiring academic degrees and for the occupation of academic positions in BAS and the Rules for the specific conditions for acquisition of academic degrees and occupation of academic positions at the Institute of Institute of Mathematics and Informatics - BAS are accomplished. After getting acquainted with the materials submitted by the applicant for the competition, I give my positive estimation about the choice of **Associate Professor Zlatinka Svetoslavova Kovacheva** in the competition for the academic position of "**Professor**" for the needs of the Institute of Mathematics and Informatics - BAS, in the Scientific Field 4. Natural Sciences, Mathematics and Informatics, the Professional Area 4.6. Informatics and Computer Sciences, the Scientific Specialty 01.01.12. Informatics (Information Modeling).

I propose that the Scientific Jury unanimously vote for a proposal to the Scientific Council of the Institute of Mathematics and Informatics - BAS, to elect **Associate Professor Zlatinka Svetoslavova Kovacheva** for the academic position of "**Professor**" in the Scientific Field 4. Natural Sciences, Mathematics and Informatics, the Professional Area 4.6. Informatics and Computer Sciences, the Scientific Specialty 01.01.12. Informatics (Information Modeling).

14.04.2020	Signature:
Sofia	/Prof. Lyubka Doukovska, PhD. DSc/