# REVIEW

in a competition for the academic position of "Associate Professor"

in professional field 5.3 "Communication and computer networks"

announced in SG no. 65 / 06.08.2021

with candidate Assistant Professor Dr. Eng. Rosen Stefanov Radkov

Reviewer: Prof. DSc. Ivaylo Ivanov Atanasov

#### 1. General provisions and biographical data

The proposal for announcing a competition for the academic position of "Associate Professor" was made by the Departmental Council of the Department of "Software and Internet Technologies", and the decision to announce the competition was taken by the Faculty Council of the Faculty of Computer Science and Automation, and it was approved by the Academic Council of TU-Varna. The competition was publicly announced by the State Gazette No. 65 on August 6, 2021.

The only candidate in the competition is Assistant Professor Dr. Rosen Stefanov Radkov. The candidate has completed secondary special education, specialty "Electronic power plants and networks" at the College of Electrical Engineering "M. V. Lomonosov ", Gorna Oryahovitsa in 1982. He acquired his higher education at the Technical University of Varna. He has been awarded master's degree, specialty "Computer Engineering", in 1989. In the following years he received additional qualification in a number of specialized courses. in the field of information and communication technologies. In 2018 he defended his PhD thesis in the field of Computer systems, complexes and networks. Since 1990 he has been a chief assistant at the Technical University of Varna, Department of Software and Internet Technologies at the Faculty of Computer Science and Automation. In the period from 1990 to 2021 he gave lectures and exercises in 17 disciplines in the field of computer communications, Internet, software technology and security. The candidate is the founder, owner and manager of the company AKT BG Ltd. with subject of activity production and service of computer, communication and other electronic systems and networks; software, engineering and technology transfer; consulting and development activities. Fluent in English and Russian, both written and spoken.

# 2. General description of the submitted materials

Dr. Eng. Radkov has defended his PhD thesis on "A design approach for high reliability data center" which is in a volume of 192 pages. The dissertation is accompanied by 4 scientific publications.

In order to participate in the competition, the candidate has submitted a monography, reprints of 22 scientific papers, 1 textbook and a reference for participation in 11 scientific projects funded by TU-Varna. I accept for review all papers - they are outside the dissertation and are in the field of competition. The attached documents can be valued in number of points by

groups of indicators, defined in the Regulations for implementation of the Law for development of the academic staff in the Republic of Bulgaria, as shown in the following table:

Indicator group	Indicator	Number of points of the candidate	Minimum number of points
A	1. Dissertation for the award of educational and scientific degree "Doctor"	50	50
С	3. Habilitation work - monography	100	100
D	7. Scientific publications in publications that are referenced and indexed in world- famous databases with scientific information	136	200
	8. Scientific publications in unreferred journals with scientific review or in edited collective volumes	300	
E	12. Citation and reviews in scientific journals, referenced and indexed in world-famous databases with scientific information or in monographs and collective volumes	90	50
	13. Citation in monographs and collective volumes with scientific review	12	
	14. Citation or reviews in unreferenced journals with scientific review	10	
F	4. Published university textbook or textbook used in the school network	20	-

The Regulations on the terms and conditions for holding academic positions at the Technical University - Varna define indicator G.22 "Hours of lectures held at TU-Varna for the last 3 years" and according to this indicator the candidate has 631 points, where the minimum number of points is 30.

In conclusion, it can be argued that the candidate meets the minimum requirements for the academic position of "associate professor" in groups of indicators, and in some indicators significantly exceeds the minimal limits.

# **3.** General characteristics of the research and scientific-applied activity of the candidate

The candidate has presented a peer-reviewed monography on "Continuity of information security: Analysis and management approaches", published at TU-Varna, 2021.

The author's contributions to publications that are referenced and indexed in world-famous databases with scientific information are 4, in 2 of which the candidate is the sole author. To participate in the competition, 17 scientific publications were presented in unreferred journals with scientific review and in edited collective volumes, of which 4 are in English and the

remaining 13 are in Bulgarian. In 13 of the publications the candidate is the sole author, in 4 publications he has one co-author.

The candidate has submitted a reference for 15 citations of his publications, 2 of which are in the reference databases Web of Science and 4 are in Scopus, 4 citations are in monographs and collective volumes with scientific review, 5 citations are in unreferenced journals with scientific review. Information is also presented for 3 reviews in scientific journals, referenced and indexed in world-famous databases with scientific information.

All publications are in the field of information and communication technologies, in particular cloud infrastructures, internet communications, reliability of communications and information security.

The candidate has participated in the development of 11 research projects. 7 of the projects are related to research in the problem area of the competition, and the remaining 4 are related to increasing the scientific potential in training.

# 4. Assessment of the pedagogical preparation and activity of the candidate

For the last three years the candidate has given lectures in Bulgarian and English. Lectures were given on 3 subjects from the curriculum of the specialty "Software and Internet Technologies", in the educational qualification degree "Bachelor", 2 disciplines included in the curriculum for the specialty "Cybersecurity", in the educational qualification degree "Master", 2 disciplines from the curriculum of the specialty "Software and Internet Technologies", in the educational qualification degree "Master" and 1 academic discipline in the curriculum of the specialty "Computer Communications and Networks", educational qualification degree "Master". All curricula are in the professional field 5.3 Communication and computer technology. In English, the candidate has given lectures in 3 disciplines in the problem area of the competition.

# 5. Main scientific and applied scientific contributions

The candidate has grouped his research in three areas, namely:

- Design and evaluation of the reliability and quality of data centers;
- Research on information security and personal data protection;
- General research.

The contributions might be categorized as scientifically applied and applied. Approaches and methodologies have been developed to increase the reliability and quality of data centers and information security models. Analyzes of models of personal data protection and intellectual property have been performed.

The candidate's publications are cited in 6 scientific journals, referenced in Scopus and Web of Science, in 4 monographs and collective volumes with scientific review and in 5 non-referenced journals with scientific review. The candidate has submitted 4 acts for implementation of developments in which he has participated and 6 references for implementation of security management systems, on which he has worked.

# 6. Significance of contributions to science and practice

The areas of research in which the candidate works are extremely relevant. Data centers are a key element of the infrastructure needed to provide information and communication services, and ensuring their reliability and security is a major challenge. The developed approaches and methods can be used to develop highly reliable data centers. Information security research can be used to prevent unauthorized access, use, disclosure and damage to personal data.

# 7. Critical remarks and recommendations

The submitted documents for participation in the competition testify to the presence of scientific contributions in the problem area, significant applied activity and academic preparation of the candidate.

The documents are carefully prepared according to the requirements. It would be good to include the pages of each document in the list of publications.

The candidate's scientific achievements are at a high level and a possible recommendation is related to the publication of more international forums in order to achieve greater publicity of the research results.

# CONCLUSION

To conclude, the candidate meets all the minimum requirements for the academic position of "associate professor", as some of the indicators are exceeded many times. The scientific and applied contributions are related to the development of new tools for significant new countries of already existing scientific fields and problems, namely cloud infrastructures and information security. The numerous research projects and implementations of the candidate testify to the practical applicability of his research. The conducted classes in a large number of academic disciplines testify to the very good pedagogical preparation. Based on my acquaintance with the presented scientific works, their significance, the scientific and applied contributions contained in them, I find it reasonable to propose Assistant Professor Dr. Eng. Rosen Stefanov Radkov to take the academic position of "Associate Professor" in professional field 5.3 Communication and computer networks.

Заличена информация по Регламент (EC) 2016/679 /Prof. DSc. Ivaylo Atanasov/

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