

OPINION

Authored by Assoc. Prof. Valentina Ilieva Markova, PhD, Technical University of Varna

Concerning scientific works submitted for participation in competition for awarding the academic position of „Associate Professor“ in the field of higher education 5. Technical Sciences, professional filed 5.3 Communication and Computer Engineering, discipline „Computer networks and Internet“

In the competition for „Associate Professor“, announced in the State Gazette, issue 65 / 06.08.2021 and on the website of TU-Varna for the needs of the Department of Software and Internet Technologies at the Faculty of Computer Science and Automation, as a candidate participates

Ch. Assist. Prof. Rosen Stefanov Radkov, PhD – Technical University of Varna

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

Ch. Assist. Prof. Rosen Stefanov Radkov participated in the competition for associate professor with a total of 21 scientific publications, a monograph and 1 manual for laboratory exercises.

The candidate's publications can be classified as follows:

- 4 scientific publications in proceedings that are referenced and indexed in the Scopus.
- 17 scientific publications in unrefereed journals with scientific review or in edited collective volumes.
- 13 publications in Bulgarian and 8 in English
- 15 individual, 6 co-authored.

The candidate's scientific works can be divided into three thematic areas:

- 1) Design and evaluation of the reliability and quality of data centers
- 2) Information security, personal data protection and information security management systems
- 3) General research

Evidence of the candidate's scientific contributions are citations of his publications by other authors in non-peer-reviewed and peer-reviewed scientific journals.

The results of research activity of Dr. Eng. Rosen Radkov satisfy the national quantitative indicators for holding the academic position of "Associate Professor", respectively grouped in indicators B, D and D.

Rosen Stefanov Radkov has participated in 10 projects at the Technical University of Varna and 1 national project under the operational program "Human Resources Development".

2. Assessment of the pedagogical preparation and activity of the candidate

Ch. Assistant Professor Dr. Eng. Rosen Radkov has been working in the Department of Software and Internet Technologies at the Technical University of Varna since 1990. In 2018 acquires ONS "Doctor" in the direction 02.21.04 "Computer systems, complexes and networks".

Over the years, Dr. Rosen Radkov has led laboratory exercises in the disciplines "Data Transmission", "Computer Communications", "Electronic Systems for Collection and Processing of Information", "Fundamentals of Computer Communications", "Computer Networks", "Computer Graphics", " Software technologies on the Internet ", " Fundamentals of digital and microprocessor technology "in the Bachelor's degree from the curricula of the specialty "Software and Internet technologies ".

In the last 3 years he has been lecturing in 3 disciplines in the Bachelor's Degree in "Software and Internet Technologies" - "Computer Networks and Internet", "Internet Servers and

Services", "Network Administration", as well as 4 disciplines in the Master's degree - "Reliability and security of communications", "Security of computer networks", "Reliability and security of ITIS. Business Continuity", "Computer Communications and Networks", "Local and Internet Network Administration". Some of these disciplines are developed in English for the study of foreign students.

Dr. Eng. Rosen Radkov is a co-author of 1 textbook - "Guide for laboratory work on Internet servers and services." He is the author of curricula in 6 disciplines: "Computer Networks and Internet", "Internet Servers and Services", "Network Administration", "Security of Computer Networks", "Reliability and Security of ITIS. Business Continuity", "Computer Network Security".

Ch. Assistant Professor Dr. Rosen Radkov was the supervisor of a total of 65 graduates.

He has participated in organizing and jointly conducting technical seminars with the joint participation of representatives of various IT companies.

3. Main scientific and applied contributions

Ch. Assistant Professor Dr. Eng. Rosen Radkov presents a monograph on "Continuity of information security - analysis and management approaches." The main contribution of the presented monographic work is a developed methodology for ensuring the continuity of technological and industrial processes through security and stability of information and recovery after an accident of various kinds.

The candidate's contributions can be defined as scientific-applied and applied. *The contributions of scientific and applied nature* are the following:

1. A methodology for ensuring high reliability of the data center has been developed, which defines actions for achieving an adequate solution [D.8.13]
2. A model of the environment has been created, defining the threats and the sources that cause them and their impact on the work of the DC [D.8.9]
3. A model of a data center for micro, small and medium business type organizations has been created, defining its components, roles, services, features and way of functioning [D.8.12]
4. An approach for selection of optimal ITIS has been created and verified [D.7.1]

Applied contributions include:

1. Reference IT infrastructures for micro, small and medium business have been designed. Their reliability models have been developed and quality indicators have been calculated [D.7.3]
2. The effectiveness of the proposed approach for choosing the optimal IT infrastructure has been validated [D.8.7]
3. An analysis of the protection of personal data and intellectual property in the information security management systems has been carried out and the areas for improvement to which the organizations should pay attention have been identified [D.8.5, 8.6].
4. A study of the dynamics of international scientific communications on the problems of the electronic patient file and the application of cloud technologies [D.8.15]
5. An analysis of the impact of the coronavirus pandemic on education, the challenges facing universities in dealing with the new reality [D.7.4]

4. Significance of the contributions to science and practice

The importance of the research and applied contributions is strengthened by the implementation of the "Approach for designing a highly reliable data center" developed by the candidate in the following organizations: ELMA-M-Group AD, "Water Supply and Sewerage" Varna and ESCOM Bulgaria Ltd.

I accept the statements of Ch. Assistant Professor Dr. Eng. Rosen Radkov contributes and I believe that they are completely sufficient to hold the academic position of "Associate Professor".

5. Critical remarks and recommendations

The independent publications of Dr. Rosen Radkov and the leading author's position in a large number of other scientific papers are proof of the individual contribution of the candidate in the implementation of research and the presented results of scientific and applied nature. But on the other hand, the academic position of "Associate Professor" involves teamwork and building the scientific capacity of young researchers, including PhD students and students. In this regard, I recommend Ch. Assistant Professor Dr. Rosen Radkov in the future to expand the team of people with whom he develops research and development by focusing on training and doctoral students.

Conclusion:

The documents submitted by the candidate in a competition for the academic position of „Associate Professor“ meet the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria and the regulations of the Technical University of Varna.

Having in mind the above, I propose Ch. Assistant Professor Dr. Eng. Rosen Stefanov Radkov to be elected "Associate Professor" in the field of higher education - 5. Technical sciences, professional field - 5.3. Communication and computer technology, discipline "Computer Networks and Internet" at the Department of "Software and Internet Technologies.

18.11. 2021 г.

Member of the scientific jury:
/Assoc. Prof. Valentina Markova, PhD/