### **OPINION**

by Prof. Georgi Valentinov Hristov, PhD, University of Ruse "Angel Kanchev", Faculty of Electrical Engineering, Electronics and Automatics,

Department of Telecommunications

regarding the competition for occupying the academic position of Professor in Higher Education Area 5. Technical Sciences,
Professional Field 5.3 Communication and Computer Technology,
Scientific Specialty: Communication Networks and Systems
(Wireless Communications and Cybersecurity in Wi-Fi Networks, Internet of Things (IoT), and
Cybersecurity Systems)

The competition for the academic position of Professor, announced in State Gazette, issue 48/13.06.2025, and on the website of the Technical University of Gabrovo, for the needs of the Department of "Communication Engineering and Technologies" at the Faculty of Electrical Engineering and Electronics, was entered by Assoc. Prof. Krasen Kirov Angelov, PhD – Technical University of Gabrovo.

### 1. Review of the content and results of the submitted works

The applicant, Assoc. Prof. Krasen Kirov Angelov, PhD, participates in the competition with 41 publications, distributed as follows:

- ✓ Scientific publications in journals and proceedings referenced and indexed in internationally recognized scientific databases 26
- ✓ Scientific publications in non-referenced journals with peer review or in edited collective volumes 15

The candidate has submitted a total of 41 scientific publications, 26 are in English (B.4.1, B.4.2, B.4.3, B.4.4, B.4.5, B.4.6, B.4.7, B.4.8, B.4.9, B.4.10,  $\Gamma$ .7.1,  $\Gamma$ .7.2,  $\Gamma$ .7.3,  $\Gamma$ .7.4,  $\Gamma$ .7.5,  $\Gamma$ .7.6,  $\Gamma$ .7.7,  $\Gamma$ .7.8,  $\Gamma$ .7.9,  $\Gamma$ .7.10,  $\Gamma$ .7.11,  $\Gamma$ .7.12,  $\Gamma$ .7.13,  $\Gamma$ .7.14,  $\Gamma$ .7.15,  $\Gamma$ .7.16) and the remaining ones are in Bulgarian ( $\Gamma$ .8.1,  $\Gamma$ .8.2,  $\Gamma$ .8.3,  $\Gamma$ .8.4,  $\Gamma$ .8.5,  $\Gamma$ .8.6,  $\Gamma$ .8.7,  $\Gamma$ .8.8,  $\Gamma$ .8.9,  $\Gamma$ .8.10,  $\Gamma$ .8.11,  $\Gamma$ .8.12,  $\Gamma$ .8.13,  $\Gamma$ .8.14,  $\Gamma$ .8.15).

Among the publications, 6 are single-authored ( $\Gamma$ .8.1,  $\Gamma$ .8.2,  $\Gamma$ .8.5,  $\Gamma$ .8.6,  $\Gamma$ .8.7,  $\Gamma$ .8.8), while the rest are co-authored, with the applicant serving as first author in a significant portion of them.

A significant portion of the publications - 26 (63.41%) are indexed and referenced in internationally recognized scientific databases:

- Scopus 26 publications (B.4.1, B.4.2, B.4.3, B.4.4, B.4.5, B.4.6, B.4.7, B.4.8, B.4.9, B.4.10, Γ.7.1, Γ.7.2, Γ.7.3, Γ.7.4, Γ.7.5, Γ.7.6, Γ.7.7, Γ.7.8, Γ.7.9, Γ.7.10, Γ.7.11, Γ.7.12, Γ.7.13, Γ.7.14, Γ.7.15, Γ.7.16)
- Web of Science 3 publications ( $\Gamma$ .7.1,  $\Gamma$ .7.2,  $\Gamma$ .7.15)

Submitted evidence demonstrating the candidate's fulfilment of the minimum requirements for occupying the academic position of "Professor" at the Technical University of Gabrovo:

Group	Indicators	Minimum number of points required by ADASRB (Groups A–E)	Candidate's points for the respective procedure
Α	Indicator 1	50	50
В	Indicators 3 or 4	100	138
Γ	Sum of indicators 5 to 11	200	403,03
Д	Sum of indicators 12 to 15	100	260
Е	Sum of indicators 16 and onward	150	261,92
Total points:			1112,95

The scientific publications submitted for the competition do not duplicate those included in the author's abstract for the PhD dissertation, nor those used in the competition for the academic position of Associate Professor. I accept all submitted materials for review.

## 2. General Overview of the Candidate's Activities

## **2.1. Teaching and Academic Activities** (work with students and doctoral candidates)

According to the submitted documentation, it is established that the candidate annually fulfills the required teaching workload. Assoc. Prof. Krasen Angelov has participated in the development of curricula and delivers lectures in the following courses: Wireless Communications and Cybersecurity in Wi-Fi Networks, Broadband Mobile Networks, Electromagnetic Compatibility, Access Control Systems, Security and Monitoring Systems, Internet of Things (IoT) and Cybersecurity Systems, Information Cybersecurity Management Systems, included in the academic programs of the Faculty of Electrical Engineering for bachelor's and master's degree programs, in both full-time and part-time study modes.

Over the past five years, he has supervised four doctoral students, one of whom has successfully defended their dissertation, while the remaining candidates are currently in the process of completing their studies.

# 2.2. Scientific and Research-Applied Activity

A clear expression of the candidate's research activity is demonstrated by the submitted reports for all indicators. The presented materials amount to 1112.95 points, significantly exceeding the minimum required threshold of 700. Among all publications submitted for the procedure, 26 (63.41%) are indexed and referenced in internationally recognized scientific databases (26 in Scopus: B.4.1, B.4.2, B.4.3, B.4.4, B.4.5, B.4.6, B.4.7, B.4.8, B.4.9, B.4.10,  $\Gamma$ .7.1,  $\Gamma$ .7.2,  $\Gamma$ .7.3,  $\Gamma$ .7.4,  $\Gamma$ .7.5,  $\Gamma$ .7.6,  $\Gamma$ .7.7,  $\Gamma$ .7.8,  $\Gamma$ .7.9,  $\Gamma$ .7.10,  $\Gamma$ .7.11,  $\Gamma$ .7.12,  $\Gamma$ .7.13,  $\Gamma$ .7.14,  $\Gamma$ .7.15,  $\Gamma$ .7.16 and 3 in Web of Science:  $\Gamma$ .7.1,  $\Gamma$ .7.2,  $\Gamma$ .7.15). Among these, 3 publications have an Impact Factor, and 8 are ranked in SJR (IF:  $\Gamma$ .7.1,  $\Gamma$ .7.2,  $\Gamma$ .7.15; SJR: B.4.1, B.4.2, B.4.6, B.4.10,  $\Gamma$ .7.7,  $\Gamma$ .7.8,  $\Gamma$ .7.13,  $\Gamma$ .7.14).

The number of citations in internationally recognized scientific databases is also impressive and serves as excellent evidence of the candidate's research achievements. In the Scopus platform, Assoc. Prof. Krasen Angelov has an h-index of 5, which is sufficiently high for the field of technical sciences.

## 2.3. Implementation and Innovation Activity

As a result of his work, the candidate has developed and implemented practical solutions, including an energy-efficient long-range narrowband communication network (LoRa) within the Internet of Things (IoT) concept for the management and monitoring of indoor lighting systems. Additionally, he has created a system for measurement, visualization, and control of electrical and non-electrical parameters in low-voltage power networks.

# 3. Contributions (scientific, research-applied, applied). Significance of the contributions to science and practice

Assoc. Prof. Krasen Angelov has submitted a very detailed report on the scientific, research-applied, and applied contributions achieved through his publications. I fully agree with the contributions presented. The obtained results can be applied in the areas of low-power wireless mesh networks, high-speed multi-channel optical networks, IoT communication protocols, Internet of Things (IoT) systems, LoRaWAN communication infrastructures, and wavelength-division-multiplexing systems.

## 4. Evaluation of the Candidate's Individual Contribution

Evidence of the candidate's individual contribution includes: significant scientific publications (26 indexed in Scopus/Web of Science; 3 of them in journals with an Impact Factor and 8 ranked in SJR — IF: Γ.7.1, Γ.7.2, Γ.7.15; SJR: B.4.1, B.4.2, B.4.6, B.4.10, Γ.7.7, Γ.7.8,

 $\Gamma$ .7.13,  $\Gamma$ .7.14); an impressive number of citations — 89 in Scopus; participation in international and national projects; participation in the committees of prestigious national and international conferences. His participation in the research activities related to his publication output is unquestionable.

In the above sections, I have emphasized the candidate's personal contribution and authorship in each relevant point, as also stated in his submitted "Declaration of Authenticity." This provides solid grounds to affirm the absence of plagiarism and the presence of academic integrity in the materials submitted by Assoc. Prof. Krasen Angelov for this competition.

### 5. Critical Remarks and Recommendations

The submitted materials for the competition are well-structured and professionally prepared. I have no remarks regarding the provided documentation or the candidate's scientific output. However, I recommend that Assoc. Prof. Krasen Angelov further intensify his publication activity in prestigious scientific journals indexed in the Q1 and Q2 quartiles, as well as in journals with an impact factor.

## **6. Personal Impressions**

I know Assoc. Prof. Krasen Angelov personally. I have excellent impressions of him, gained through our joint work on scientific projects and participation in academic committees for PhD dissertation defenses. Overall, Assoc. Prof. Krasen Angelov, PhD, is a highly regarded researcher and university lecturer who has progressed through all stages of academic development and has extensive academic experience. He demonstrates a high level of research and development competence and is a well-recognized scholar both in Bulgaria and abroad.

### 7. Conclusion

The materials submitted by the candidate demonstrate substantial scientific output, exceeding the minimum requirements set by the Act for the Development of the Academic Staff in the Republic of Bulgaria (ADASRB), its Regulations, and the Procedural Rules of the Technical University of Gabrovo. The evidence provided for the individual criteria is sufficient and indisputable.

Considering the above, I recommend that Assoc. Prof. Krasen Kirov Angelov, PhD, be elected to the academic position of Professor in Higher Education Area 5. Technical Sciences, Professional Field 5.3 Communication and Computer Technology, Specialty Communication Networks and Systems (Wireless Communications and Cybersecurity in Wi-Fi Networks, Internet of Things (IoT), and Cybersecurity Systems).

05.11.2025 Committee Member:

/Prof. Georgi Hristov, PhD/