

### OPINION

by Assoc. Prof. Dr. Eng. Denis Safidinov Chikurtev
Communication Systems and Services Section
Institute of Information and Communication Technologies at the Bulgarian
Academy of Sciences
professional field 5.2 Electrical Engineering, Electronics and Automation

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

at the Institute of Robotics at the Bulgarian Academy of Sciences, in the field of higher education 5. Technical Sciences,

professional field 5.2 Electrical Engineering, Electronics and Automation, for the needs of the Unmanned Robotic Systems Laboratory, announced in National newspaper no. 85 / 10 October 2023.

with candidate: Assistant Professor Dr. Alexander Kirilov Alexandrov

# 1. General characteristics of the applicant's research and applied activities.

One candidate participates in the competition – Assistant Professor Dr. Alexander Kirilov Alexandrov, employee at the Institute of Robotics at the Bulgarian Academy of Sciences. The research and teaching activities of the candidate are entirely in the field of the competition. The applicant fully meets the national minimum requirements, as well as those of the IR at the Bulgarian Academy of Sciences for occupying the academic position of "Associate Professor", as follows:

**Indicator A (50** out of 50 points) – a diploma for educational and scientific degree "Doctor" from IICT at the Bulgarian Academy of Sciences is presented from 06.06.2017. It is on the topic: "Integration of data from intelligent sensor systems.

**Indicator B** (100 out of 100 points) – the candidate has presented a Habilitation Work – monograph on "Wireless sensor systems. Architecture and Communication Protocols". The topic of the monograph falls within the theme of the announced competition. The monograph is structured in six chapters, developed in a volume of 260 pages. The presented studies in the monograph build on the thesis of the candidate and show that he is actively developing as a scientist.

**Indicator G** (223.8 out of 200 points) - Dr. Alexander Alexandrov has attached a list of 7 publications (6 in G7 and 1 in G8). No independent publications have been submitted. There is no information whether the submitted publications are

different from the publications on the candidate's dissertation. After consulting the list of publications on the thesis of the candidate, it was found that the submitted publications in this competition were not used in his dissertation.

The presented publications show that the candidate continues to develop the topic of his dissertation and to work in the field of wireless sensor systems and communication protocols. The candidate's contributions for each of the submitted publications is certified by contribution protocols, each co-author having confirmed his contribution. The application of the contribution protocols, confirms the calculated points in this section.

**Indicator D** (63 out of 50 points) - the author's reference for the citations under group D is accurate and detailed. Six citations are presented in refereed and indexed world-famous databases with scientific information and one citation in a monograph.

### 2. Basic scientific and applied research contributions

The applicant has submitted a list of 7 scientific and applied scientific contributions (which are not divided into "scientific" and "scientific-applied"). The contributions are not grouped, but it is only mentioned in which work of the author they are described. Each contribution corresponds to one scientific publication. I acknowledge the contributions presented.

In my opinion, 3 of the contributions are scientific -2, 3, and 7, and the remaining 4 contributions are scientifically applied.

The contributions are based on the theme of the competition. I believe that the contributions are the personal work of the candidate.

## 3. Significance of contributions to science and practice

It is a good impression that most of the publications and contributions of the candidate are extremely directly aimed at solving practical problems in the field of innovative methods and means of monitoring, communication, sensor measurements, data processing and transmission in a wireless network environment.

### 4. Critical remarks and recommendations

I have no critical remarks.

I would recommend the candidate to publish more works in publications abroad, included in the world-famous database SCOPUS and Web of Science, with Impact factor and / or Impact rank. In addition, I recommend the candidate to publish independent articles in refereed editions.

#### **CONCLUSION**

In conclusion, I find that the candidate meets the requirements for occupying the academic position of "Associate Professor" according to the Law on Academic Research, the Regulations for its application and the Regulations for occupying academic positions of the Institute of Robotics at the Bulgarian Academy of Sciences.

Getting acquainted with the materials of the competition gives me reason to confidently suggest Assistant Professor Dr. Alexander Kirilov Alexandrov to take the academic position of Associate Professor in the professional field 5.2. Electrical Engineering, Electronics and Automation at the Unmanned Robotic Systems Laboratory of the Institute of Robotics at the Bulgarian Academy of Sciences. As a member of the scientific jury, I will vote in no doubt "agree".

Date: 14.02.2024

Member of the jury:

(Assoc. Prof. Dr. Eng. Denis Chikurtev)