

## STATEMENT

For the competition for occupation of the academic position "associate professor" in the field of higher education 5. Technical sciences, by professional field 5.2. Electrical engineering, electronics and automation, scientific specialty "Application of the principles and methods of cybernetics in various fields of science", announced in SG no. 45 / 28.05.2021

with a single candidate: Assistant Professor Dr. Eng. Stanislav Dimitrov Gyoshev  
Chairman of the scientific jury: Assoc. Prof. Dr. Naiden Nedkov Shivarov

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

One candidate participates in the competition - Assistant Professor Stanislav Dimitrov Gyoshev, PhD, from the Institute of Information and Communication Technologies. The candidate completed his secondary education in 2007 at the Sofia Vocational High School of Electronics "John Atanasov", Sofia (Bulgaria) with a degree in "Electronic Engineering", in 2011 he obtained a Bachelor's degree in "Mechanical Engineering and Instrumentation" at the Technical University - Sofia (Bulgaria), in 2013 and a Master's degree in the same specialty. In 2016 he received a doctoral degree in scientific specialty 02.21.10. Application of the principles and methods of cybernetics in various fields of science. Since 2017 he has been a senior assistant at the Institute of Information and Communication Technologies at the Bulgarian Academy of Sciences (ICT-BAS).

The research activity of the candidate is entirely in the field of the competition. The candidate fully meets the national minimum requirements, as well as those of the Institute of Information and Communication Technologies at BAS for the academic position of "Associate Professor", as follows:

**Indicator A** (50 out of 50 required points) - a diploma for "Doctor" from the Bulgarian Academy of Sciences, Institute of Information and Communication Technologies from 29.09.2016 was presented.

**Indicator B** (159.23 out of 100 points) - the candidate has presented 10 scientific publications that are referenced and indexed in world databases WoS or Scopus. They are grouped under the title: "Innovative approaches to improving the quality of life and the quality of materials". Among these 10 publications there are no independent works of the candidate. No separation protocols have been presented, so I believe that the authors have an equal contribution in them.

**Indicator G** (268.96 out of 220 points) - the candidate has submitted publications on indicators **G8** - 26 issues, of which 8 are independent in national journals and conference proceedings.

**Indicator D** (171 out of 60 points) - the author's reference for the citations under group D is accurate and detailed. Cited in WoS or Scopus, Cited in monographs and collective volumes with scientific review and Cited in unrefereed journals are presented. The candidate has h-index 4 in Scopus.

**Indicator E** (244 out of 20 points) according to the attached reference. The active participation of the candidate in research projects makes a good impression. He is the leader of 3 national projects and participates in the Bulgarian team in one international project.

## **2. Major scientific and applied contributions**

I accept all the contributions presented in the applicant's report and evaluate them positively. They can be assessed as scientific-applied as follows:

- Methods for 3D digitalization and 3D modeling of objects of cultural and historical heritage have been developed, and he has participated in the application of the developed methods, which are presented in exhibitions and galleries abroad.
- Innovative technologies for testing the wear resistance of thin surface coatings have been proposed.
- Innovative technologies for high-speed briquetting of metal waste from various materials have been studied.

All contributions are in the field of the competition. The contributions are formulated on the basis of what the author has done and accurately reflect what has been achieved.

## **3. Significance of contributions to science and practice**

It is good to note that most of the publications and contributions of the candidate are directly aimed at solving practical problems in the field of "Methods and tools for improving the quality of life of people with visual impairments - research, modeling and simulations; development of tools for 3D visualization (Braille screens, tactile plates) ", as well as in " Methods and tools for creating materials with improved physic-chemical properties - research and development of

materials containing micro and nano elements with increased hardness, wear resistance, hydrophobicity (surface coatings, powder metallurgy materials) '.

#### **4. Critical remarks and recommendations**

I did not find significant inaccuracies and errors in the scientific works. Nevertheless, there are some shortcomings, technical errors, omissions, incompleteness, etc., the typical of which are:

- There are no stand-alone publications in Scopus visible editions.
- Not all publications clearly disclose scientific and applied contributions.
- Declared contributions are presented in great detail, should be abbreviated and summarized, and each contribution should be defined in a complex sentence.
- There are publications where there is an overlap of texts.
- I recommend in the future more independent publications, in particular in WoS or Scopus visible editions, as well as active participation in the new scientific program of the EC - Horizon Europe.

Despite the critical remarks and omissions (which are not essential for the overall assessment), I believe that the formulated decisions and contributions are proof that the candidate is fully prepared for the academic position of "associate professor".

#### **5. Personal impressions**

I know the candidate personally and I have very good impressions of his scientific and research work. He has a strong desire to improve and apply intelligent technologies in science, a successful participant in teams that have achieved significant results in the implementation of a number of research and practical projects. He is a co-author of two national patents, one utility model and a patent application, which shows the scientific and applied nature of the applicant's work. I can confidently say that in his professional relations he is well-meaning, reliable and accurate.

## CONCLUSION

As conclusion, I can say that the candidate has met the requirements for holding the academic position of "Associate Professor" according to ADAPRB, the Rules for its application and the Rules for holding academic positions at the Institute of Information and Communication Technologies at BAS. This gives me reason to convincingly recommend to the esteemed scientific jury to evaluate positively the scientific papers on the competition and proposed to the Scientific Council of the Institute of Information and Communication Technologies to elect Assistant Dr. Eng. Stanislav Dimitrov Gyoshev to take the academic position of "Associate Professor" in the professional field 5.2. Electrical Engineering, Electronics and Automation, scientific specialty "Application of the principles and methods of cybernetics in various fields of science", in the section "Cyber-physical systems" at the Institute of Information and Communication Technologies at BAS.

Date: 15.09.2021 г.

JURY MEMBER:

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