

OPINION

in a competition for the academic position of "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 candidate: ch. Assistant Professor Dr. Eng. Stanislav Dimitrov Gyoshev
Member of the scientific jury: Prof. Dr., Eng. Lyubomir Vankov Dimitrov

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

One candidate participates in the competition - Ch. Assistant Professor Stanislav Dimitrov Gyoshev, PhD, from the Cyber-Physical Systems Section at the Institute of Information and Communication Technologies. 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 ONS "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 in publications that are referenced and indexed in world-famous databases. 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 share in them.

Indicator G (292.94 out of 220 points) - the candidate has submitted publications on indicators G8 - 26 issues. The candidate has a total of 11 publications in the Scopus database.

Indicator D (171 out of 60 points) - the author's reference for the citations under group D is accurate and detailed. The candidate has an h-index 4 in Scopus.

Indicator E (244 out of 20 points) - reference is attached. 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. Main scientific and applied contributions

The candidate has submitted a list of scientific and scientific-applied contributions, and they are not divided. No "applied" contributions were presented. I would classify the contributions as follows:

Scientific:

- An innovative technology has been developed to study the wear of thin surface coatings

Scientific and applied:

- A model has been developed for experimental studies of high-speed impact processes using a rocket engine.

Applied:

- An algorithm for 3D printing of tactile Braille paintings from two-dimensional sources has been developed.
- An algorithm for 3D printing of three-dimensional figures from two-dimensional sources has been developed.
- An algorithm for high-speed briquetting of metal scrap of different materials has been developed.

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. All contributions are described in great detail and could be abbreviated.

3. Significance of contributions to science and practice

It is good to note that most of the publications and contributions of the candidate are extremely 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 physico-chemical properties - research and development of materials containing micro and nano elements with increased hardness, wear resistance, hydrophobicity (surface coatings, powder metallurgy materials) '.

The candidate has implemented in Bulgaria and abroad developments in which he has participated. They are confirmed by 2 Bulgarian patents and 1 Bulgarian utility model. Some of the implementations abroad (Italy) are described in the attached publications (tactile tiles from 7 tapestries for the "Battle of Pavia - 1525" and tactile tiles from the painting "Christ and the Samaritan woman at the well" in Gallery - Brera - Milan). They are another proof of the importance of his contributions in science and especially in practice.

4. Critical remarks and recommendations

I did not find any fundamental and significant errors and inaccuracies in the submitted documents under the competition. I would recommend the candidate to publish more independent works.

5. Personal impressions

I know the candidate personally and I have very good impressions of his scientific, research and especially implementation activities.

CONCLUSION

In 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 propose Ch. Assistant Professor Stanislav Dimitrov Gyoshev, PhD, 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", "section" Cyber-physical systems "at the Institute of Information and Communication Technologies at BAS.

Date: 14.09.2021.

JURY

