

OPINION

On the competition for acquirement of the academic position of “Associate Professor”

Field of higher education - 5. Technical sciences

Professional field 5.3. "Communication and computer technology",

Scientific specialty "Computer and Software Engineering”,

Announced from TU – Gabrovo in State gazette issue 54/25.06.2024 and on the TU-Gabrovo website for the needs of the Department of Computer Systems and Technologies at the Faculty of Electrical Engineering and Electronics

With applicants: Ch. Assistant Hristo Stefanov Kilifarev, PhD

Member of the scientific jury: Prof. Stanislav Denchev Simeonov

1. Overview of the content and results in the presented papers

In the reference presented to me by Ch. Assistant Hristo Stefanov Kilifarev, a total of 35 materials are available. All works submitted for participation in the competition are beyond those for the dissertation and for holding the academic position of "Chief Assistant". They correspond to the theme of the competition and are accepted for review.

I classify the presented works as follows:

- 11 pcs. scientific publications in publications that are referenced and indexed in world-renowned databases with scientific information (Scopus - 11, Web of Science-1);
- 22 pcs. scientific publications in non-refereed peer-reviewed journals or in edited collective volumes;
- 1 textbook on "Schematics" and 1 textbook - "Manual for laboratory exercises on microprocessor technology"

It is clear from the presented materials that 17 pcs. of the publications are in English, 16 pcs. – in Bulgarian. Seven of the publications are self-published, impact factor data is available for one. Based on the author's reference, I allow myself to make the following thematic summary:

- Design and development of automated systems - publications are included here - B.4.1., B.4.2., B.4.3., B.4.4., D.8.6., D.8.11. and D.8.18.;
- Audio recordings in online learning platforms - publication B.45.;
- Specialized non-contact parameter studies - publications B.4.7., B.4.6., B.4.8., Г.7.1., Г.8.5., Г.8.7., Г.8.10., Г.8.11., Г. 8.12., Г.8.13., Г.8.14., Г.8.15., Г.8.16., Г.8.17., Г.8.18., Г.8.19.;
- Systems for short-term forecasts of meteorological conditions - publications Г.8.21., Г.8.20., B.4.10., B.4.9.;
- Optimization of large data sets - publication Г.8.3.;
- Simulation studies of processes in electric cars - publications Г.8.8., Г.8.9., Г.8.22.

The scientific production presented at the competition is summarized in the following Table.

Groups of indicators	Requirements	Performance by the candidate
Indicators group A.	At least 50points	50
Indicators group B.	At least 100 points	275
Indicators group Г.	At least 200points	226
Indicators group Д.	At least 50points	80

2. General characteristics of the applicant's activity

2.1. Educational and pedagogical activity (work with students and doctoral students)

Ch. Assistant Hristo Stefanov Kilifarev, Ph.D. worked in the "Automation, Information and Control Technology" department of TU-Gabrovo in the period of 2002. – 2017 He held academic positions - "Assistant", "Senior Assistant", "Ch Assistant". He has held the position of "chief assistant" in the "Computer Systems and Technologies" department since 2018. He has led lecture courses in the topics: Computer Graphics", "Multimedia Systems", "Embedded Systems Programming", "Computer Peripherals", "Computer Graphics Systems", "Modeling and Visualization of Objects", Computer Graphics", "Web Design and multimedia products", "Multimedia design and presentation", in OKS Bachelor and in the topics: "Multimedia systems and Web-design", "Computer graphics" and "Computer peripherals", in OKS Master. According to the presented reference, he led seminars and laboratory exercises in "Schematic engineering", "Computer graphics", "Multimedia systems", "Programming of embedded systems", "Microprocessor technology", "Artificial intelligence", "Computer peripherals", "Computer graphics systems", "Modeling and visualization of objects", "Web design and multimedia products" and Multimedia design and presentation", in OCS "Bachelor" and in "Multimedia systems and Web-design", "Systems with artificial intelligence", "Computer Graphics", "Computer Peripherals" and "Microprocessor Technology", in OCS "Master".

He is the author of a textbook on "Schematics" and "Manual for laboratory exercises in microprocessor technology". He is the head of a large number of graduation theses - 59. He participated in the development of 49 study programs. These data give me reason to conclude at this point that Ch. Assistant Hristo Stefanov Kilifarev, PhD is a respected teacher, competent, demanding and with a positive attitude towards students

2.2. Scientific and scientific-applied activity

In accordance with the presented reference, Ch. Assistant Hristo Stefanov Kilifarev, Ph.D., participated in a project under the operational program "Science and education for intelligent growth" and 5 internal scientific or educational projects of TU-Gabrovo. Ch. Assistant Kilifarev led an internal project of TU-Gabrovo.

2.3. Implementation activity

For educational purposes, the specialized educational platform Hydra Educational Platform (HEP) was designed and implemented at TU-Gabrovo, which serves to manage video recordings during online learning.

3. Contributions. Significance of contributions to science and practice

I accept candidate-defined contributions. Proceeding from the statement that a scientific contribution is understood as: formulation and justification of a new scientific problem (area); formulation and justification of a new theory (hypothesis); proving with new means essential new sides in existing scientific problems and theories, I allow myself to unite scientific contributions together with scientific - applied contributions. I have no complaints about their content. I believe that they are completely sufficient for occupying the academic position of "associate professor". I attach particular importance to the candidate's entrepreneurial activity, which is related to solving tasks within the Gabrovo Technical University.

4. Evaluation of the candidate's personal contribution

I comprehensively evaluate the personal contributions of Ch. Assistant Hristo Stefanov Kilifarev, Ph.D., as significant and I classify them as follows:

- Enrichment of knowledge and systems by formulating innovative approaches in existing scientific fields;
- Creation of modified and optimized methods and schemes for obtaining confirmatory facts;
- Implementation of applied contributions in education.

5. Critical notes and recommendations

I have no critical notes. In a purely constructive way, I would recommend the colleague to increase his activity in the implementation of international contracts - teaching and scientific research. It's good to narrow down the breadth of your research. This will give him the opportunity to go into greater depth on a certain topic and allow for the realization of journal publications from Q1. The elements of a "scientific image" indicate successful and productive research activity. They should be subject to mandatory introspection, to form deep guidelines for research and further publication activity, I have no doubt.

6. Personal impressions

Personally, I vaguely know the candidate. I get my impressions of him mainly on the basis of the presented documents. I form an opinion of a well-prepared researcher and an experienced teacher. The recommendations given in this review are part of impressions, based on the provided documents and my judgment after analysis of the scientific production that was provided to me.

7. Conclusion:

In order to justify my conclusion, I will allow myself to make the following summaries:

- The candidate has sufficient professional and academic experience and knows well the current state of science in the competition field;
- There is a sufficient volume of scientific output with scientific-applied and applied contributions corresponding to the requirements for the academic position.

Bearing in mind the above, I give my positive opinion, Ch. Assistant Hristo Stefanov Kilifarev, Ph.D., to be elected "associate professor" in the field of higher education - 5. Technical sciences, professional field - 5.3. Communication and computer engineering, specialty - "Computer systems, complexes and networks" (Schematic engineering, Microprocessor engineering).

Burgas

07.11.2024

Signature: _____/signature/_____

/Prof. Stanislav Simeonov/