

KONSTANTIN
PRESLAVSKY
UNIVERSITY
SHUMEN



UNIVERSITY OF SHUMEN
"EPISKOP KONSTANTIN PRESLAVSKI"

FACULTY OF TECHNICAL SCIENCES

OPINION

in the competition for taking the academic position „Associate Professor“ in the field of higher education 5. „Technical sciences“, professional field 5.7. „Architecture, Civil Engineering and Geodesy“, scientific specialty „Cartography (including thematic geographic mapping)“, published in the State Gazette. 21 / 12.03.2019 and on the website of Shoumen University „Episkop Konstantin Preslavski“

with the candidate Ch. Assist. Sabin Ivanov Ivanov, Ph.D.

Member of the Scientific Jury: Prof. Dr. Borislav Yordanov Bedzhev, Shumen University „Episkop Konstantin Preslavski“, Department of „Security Systems Management“

1. A general characteristic of the applicant's research and applied research

In the aforementioned competition for taking the academic position „Associate Professor“ for the needs of the Faculty of Technical Sciences (FTN) of the University of Shoumen „Episkop Konstantin Preslavski“ (Shumen University „Preslavski“) participates one candidate – Ch. Assist. Sabin Ivanov Ivanov, Ph.D. He was born in Popovo, where he graduated secondary school at „Kliment Ohridski“ High School. In the period 1997 - 2002 he received Bachelor's degree and Master's degree in the University of Veliko Tarnovo „P. Volov“ - Shumen, specialty „Geodesy, photogrammetry and cartography“. From 2014 until now he has held the academic positions „assistant“ and „chief assistant“ in the Department of „Geodesy“ at the FTN of ShU „Ep.K. Preslavsky“. In 2017 he received the „Doctor“ NSS from the ShU „Ep. K. Preslavski“ after a successful defense of dissertation thesis on „Mapping and analysis of the cultural and historical heritage of the Shumen region“, doctorate program „Cartography (including thematic geographic mapping)“.

In the academic degree competition „Associate Professor“ Chief Assist. Dr. Sabin Ivanov participated with 12 scientific works: monograph (1), dissertation work (1) and 10 pieces. articles and reports. All the applicant's

scientific papers were developed independently. From these works 7 pcs. are written in Bulgarian and 5 pcs. - in English.

Depending on the scientific forum where the articles and reports are presented, they are classified as follows:

- in scientific journals and yearbooks in Bulgaria - 5;
- at international scientific conferences in Bulgaria – 5.

According to Art. 2b, para. 2 and 3 of the Law on the Development of the Academic Staff in the Republic of Bulgaria (SRARDB) and the minimum national requirements for applicants for Academic position "Associate Professor" in field 5. Technical sciences (including professional field 5.7 "Architecture, construction and geodesy") of the Regulations for the implementation of the ZARRPB (Scientific and Scientific Information) the scientific works of Ch. Assist. Sabin Ivanov can be classified as follows:

- 1) Group of Indicators A, Indicator 1 "Dissertation assignment for assignment of NSA" Doctor "- 50 points at the required 50 points - corresponds;
- 2) Group of indicators C, Indicator 3 "Habilitation work-monograph" - 100 t at the required 100 t - corresponds;
- 3) Group of Indicators D, Indicator 8 "Scientific Publication in Unrefined Journal with Scientific Review or in Collected Collective Volumes" - 200 pts for the required 200 pts - corresponds;
- 4) Group of indicators E, Indicator 13 "References in monographs and collectives with scientific review" - 51 points at the required 50 points - correspond.

There are currently 17 quotes from the candidate in Yearbooks (6) and Scientific Conferences (11). This shows that the research and scientific activities of Ch. Assist. Sabin Ivanov is recognized by the scientific community in the field of architecture, construction and geodesy.

The candidate is a member of the Union of Scientists in Bulgaria and supports the work of the student IEEE Branch of the National Research Institute "V. Levski "and SHU" Ep. K. Preslavsky ".

2. Evaluation of the applicant's pedagogical training and activities

In the period from 2014 until present, Ch. Assist. Sabin Ivanov, Ph.D., has developed a fruitful and versatile teaching activity in the FTN of "Sh. K. Preslavsky ". This conclusion is based on the following facts:

- has attended classes in more than 10 disciplines at Bachelor's and Bachelor's Degree Courses;
- participated in the development of a large number of curricula and a training toolbook ("Guide to Work with a Topographic Map", published by

University Press Publishing, ISBN 978-619-201-239-7); the construction and equipment of the laboratory and educational facilities of the Geodesy Department, as well as the organization and conduct of student scientific forums;

- has supervised and reviewed numerous student projects in different CABs, was a course supervisor and academic mentor (Project BG05M20P001-2.002-0001 of the Ministry of Education and Science);

- conducted an Erasmus + lecture course at Riga Technical University, Latvia.

3. Key scientific and applied research contributions

Contributions in the applicant's research papers can be structured by groups of works and thematic areas as follows:

Scientific and Applied Contributions in the Monographic Work "Contemporary Aspects of Mathematical Cartography":

- Based on the analysis of the theoretical principles and the contemporary practical methods for their application the trends in the development of the mathematical cartography are justified;

- Methodologies and algorithms for selecting (mapping) the type of map projection and mapping transformation methods are justified, depending on the specificity of the problem solved.

Scientific and applied contributions in publications outside monographic work:

In Mathematical Cartography:

- A new algorithm has been developed to calculate the starting angle to be solved by means of the sinus and cosine of the measured horizontal angles;

In the field of mapping:

- 3D technology for object mapping has been developed and basic technological principles have been formulated to create concepts for storing, maintaining and exploiting sites of cultural and historical heritage.

Applied contributions in the field of organization and management of the training process in the training of engineers operating geographic information systems:

- A methodology for working with a topographic map has been developed.

From the analysis of the scientific production of Ch. Assist. Sabin Ivanov, the following conclusions can be made:

Firstly, the scientific, scientific and applied contributions are expressed in the proving with new means of significant new countries of already existing scientific fields, problems, theories, hypotheses; creating new classifications, methods, constructions, technologies and obtaining confirmatory facts.

Secondly, the candidate has a thorough knowledge of the scientific specialty of the competition, can independently solve topical scientific and scientific-applied tasks at a high scientific level, as well as manage scientific collectives, summarize the results of research and present them in an appropriate form for training of students, postgraduates, PhD students, etc. scientific and engineering staff.

Thirdly, the themes of research, their interconnectedness and the specific style show that the contributions are a personal work of Ch. Assist. Sabin Ivanov, PhD

4. Significance of contributions to science and practice

The Importance of Contributions in the Scientific Papers of Ch. Assist. Sabin Ivanov, Ph.D., from the following circumstances.

First, the scientific output of the candidate is presented on authoritative scientific forums.

Secondly, the candidate has participated in 8 research projects, successfully completed and on time.

Thirdly, teaching aids, laboratory facilities and software developed by Ch. Assist. Sabin Ivanov, are used by students, graduates and PhD students in the field of geodesy.

5. Critical remarks

To the Research and Scientific Production of Chief Ass. Dr. Eng. Sabin Ivanov can make the following critical remarks.

First, in some of the earlier publications, the findings are too laconic and not accurate enough.

Second, higher activity is needed to publish research results in our and foreign magazines, including those with an impact factor or an impact-rank.

6. Conclusion

Presented by Ch. Assist. Sabin Ivanov, Ph.D., participates in the competition or exceeds the minimum national requirements for applicants for Academic Position "Associate Professor". The analysis of his scientific

production and the results of his professional activity show that Ch. Assist. Sabin Ivanov is a graduate and well-qualified scholar with a high level of qualification in the field of the competition and his skills are fully in line with the requirements of ZARRPB, PPRZRASRB and the Regulations for the Development of the Academic Staff in the " K. Preslavsky ". Moreover, the weaknesses outlined above can easily be removed in its future work.

Based on the introduction of the presented scientific papers, their significance, the scientific, applied and applied contributions contained therein, Sh. Assist. Sabin Ivanov Ivanov to be elected as a "Associate Professor" in the field of higher education 5. "Technical sciences", professional field 5.7. "Architecture, Civil Engineering and Geodesy", scientific specialty "Cartography (including thematic geographic mapping)" at the University of Shoumen "Episkop Konstantin Preslavski".

Shumen

Member of the Scientific Jury:.....

07.06.2019 .

Prof. dr. Eng. Borislav Bedzhev