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PRESLAVSKY
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SHUMEN



UNIVERSITY OF SHUMEN
"BISHOP KONSTANTIN
PRESLAVSKI"

Faculty of Technical Sciences

Department "Geodesy"

REVIEW

on a competition for academic position "Professor"
in the field of higher education 5. „Technical sciences“, professional field 5.7. „Architecture,
Construction and Geodesy“ (Photogrammetry and remote sensing methods) in the Department of
Geodesy at the Faculty of Technical Sciences of the University of Shumen "Bishop Konstantin
Preslavsky ”.

The competition is announced in SG No. 41/03.06.2022 г.
Candidate: Assoc. Prof. Dr. Eng. Kiril Filipov Yanchev

**Produced the review: Assoc. Prof. Dr. Eng. Plamen Mihaylov Mihaylov
by Shumen University „Bishop Konstantin Preslavsky ”**

Grounds for preparing of the review:

1. Order No. RD-16-174 of 31.08.22 of the Rector of the "Bishop Konstantin Preslavski" University of Applied Sciences for the appointment of a scientific jury for the conduct of the announced in SG no. 41/03.06.2022 competition for the occupation of the academic position "Professor" in the field of higher education 5. "Technical sciences", professional direction 5.7. "Architecture, Construction and Geodesy" (Photogrammetry and Remote Methods) in the Department of "Geodesy" at the Faculty of Technical Sciences of the Shumen University "Bishop Konstantin Preslavski".

2. Minutes of the first meeting of the scientific jury under the procedure for conducting the competition announced in SG no. 41/03.06.2022 competition for the occupation of the academic position of "professor" in the field of higher education 5. "Technical sciences", professional direction 5.7. "Architecture, Construction and Geodesy" (Photogrammetry and Remote Methods) in the Department of "Geodesy" at the Faculty of Technical Sciences.

3. Certificate of fulfillment of the minimum national requirements under Art. 26, para. 2 and 3 and the requirements under Art. 24 of LDASRB of assoc. prof. Dr. Eng. Kiril Filipov Yanchev.

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

The only candidate for participation in the competition is assoc. prof. dr. eng. Kiril Filipov Yanchev, Ph.D. He completed his higher education in 2011 at the Shumen University "Ep. K. Preslavski" and graduated as a Bachelor - Engineer in "Geodesy, Photogrammetry and

Cartography". Master of Engineering in Geodesy and Master of Engineering in Transport Construction. In 2017, he defended his dissertation at the SHU and received the educational and scientific degree "Doctor". From the beginning of 2017 until now, he has been a teacher in the "Geodesy" department of the SHU - assistant, chief assistant and associate professor in professional direction 5.7 Architecture, construction and geodesy, scientific specialty "General, higher and applied geodesy". It is a member of USB - Shumen branch.

The career and creative development of Associate Professor Kiril Yanchev is relatively short, but on the other hand, he has extensive practical experience, which allows him to cope with the challenges of scientific and research work. This is reflected in the scientific production presented by him and its thematic orientation and scope.

First of all, this is a habilitation work - a monograph "Laser scanning - the achievable precision in the field of photogrammetry, remote sensing and geodesy".

There are 14 scientific publications in non-refereed peer-reviewed journals or edited collective volumes, 34 citations are indicated in monographs and collective volumes with scientific review, as well as 4 university textbooks.

Regarding authorship, I consider that the presented independent publications (6), which are the smaller part of his scientific output, and the collective developments (8) are in balance. It is good that the candidate also carries out independent publications and works, but also participates in collective publications and scientific projects, where he shares his own scientific and practical-applied ideas.

In accordance with the above, I consider that the requirements for the quantitative parameters and qualitative characteristics, which must be met by the research and scientific-applied activities of the candidate for "Professor", are fully satisfied. Associate Professor Dr. Kiril Yanchev fulfills the minimum national requirements under Art. 26, para. 2 and 3 from LDASRB for "Professor" in area 5. Technical sciences, collecting a total of 612 points.

2. Assessment of the candidate's pedagogical training and activity

I have direct impressions of the teaching work of Assoc. Dr. Kiril Yanchev in the department. Also, he is a student of mine, then a PhD student in the department, and I am aware of his entire academic development.

Through participation in various forms of expanding and deepening one's qualifications and through membership in USB (Union of Scientists in Bulgaria), a solid professional training was realized and competences were acquired, confirming Assoc. Dr. Kiril Yanchev as a teacher and scientific researcher with lasting interests and in-depth knowledge. These efforts and the professional attitude towards his work bring him well-deserved authority among the academic community of SHU and among specialists from a number of institutions in Bulgaria.

Associate Professor Dr. Kiril Yanchev is a well-established teacher, lecturing on the main subjects of study for students, majoring in "Geodesy", OCS "Master" after SE and OCS "Master" after at the School of Higher Education. Part of the lecture courses are in the direction of the competition, with a large part provided with literature prepared with the participation of the candidate. The acquired knowledge, skills and experience are actively used through the candidate's participation and management of a number of educational projects - the development of study programs, participation in the development of study plans, participation in specialty accreditations, etc. These facts provide the necessary basis for the categorical assessment that Associate Professor Dr. Kiril Yanchev possesses modern teaching qualities and skills, which he creatively applies in his academic activity.

3. Basic scientific and scientific-applied contributions

From the detailed analysis of the presented scientific production, I judge that the scientific research reflected in it has a systematic nature and is a synthesis of the creative searches and the scientific-pedagogical improvement of the candidate for the second habilitation. The results of the research work derive from purposeful activity in which the real needs of science and practice occupy a central place.

An important place in the candidate's scientific output is occupied by the presented monograph "Laser scanning - the achievable precision in the field of photogrammetry, remote sensing and geodesy". This is an in-depth theoretical analysis, through which the state and original views of Assoc. Dr. Kiril Yanchev regarding the tasks and problems of modern technologies in the field of photogrammetry and geodesy in general are presented. The monograph examines the evolution of ideas on the subject and the methods of modern measurements performed using ground-based laser systems. Problems in the measurement of meteorological parameters affecting the accuracy of observational results obtained by methods of terrestrial and satellite scanning systems are discussed. Attention is paid to the different types of laser systems and photogrammetric principles of operation, including their design, conducting measurements and mathematical modeling of the results. The monograph possesses originality, which, combined with its scope and thoroughness, defines it as a scientific product of high importance for the scientific, educational and practical spheres.

The second sector in scientific production is represented by articles and scientific reports, which are thematically united and present the results of scientific research in the field of photogrammetry and remote measurements. In these two directions of scientific interests and searches, three important scientific-applied and two applied contributions, as well as original practical solutions, have been formed.

The candidate's achievement is also the successful reflection of the results of the research activity in the presented educational publications. This third sector presents the candidate in the light of a university professor. This sector presents the published 4 university textbooks "Photogrammetry and Remote Methods Part I" and "Photogrammetry and Remote Methods Part II", "Digital Image Processing Part I" and "Digital Image Processing Part II". Their content shows that he has an excellent command of the taught academic disciplines.

I confirm that the stated claims for contributions, correctly formulated, reflect the results of the author's scientific and applied research.

4. Significance of contributions to science and practice

Regarding the significance of the candidate's contributions to science and practice, it should be noted:

- The articles have been published in renowned foreign and Bulgarian journals: "Journal scientific and applied research" (USA);
- Scientific reports have been presented at authoritative scientific forums in our country - "MATTEX" and the Shumen University Yearbook.

The presence of more than 30 citations by other authors indicates that the results of the research activity of Assoc. Dr. Kiril Yanchev are positively evaluated and used in professional circles. He is recognizable in the professional space in our country.

5. Critical notes and recommendations

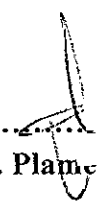
A large part of the presented 34 citations for the competition are of his colleagues from the department. My recommendation to Prof. Dr. Kiril Yanchev is to direct his efforts to publish in specialized foreign scientific journals indexed in global scientific databases, such as SCOPUS and WOS, because his research in the field of Photogrammetry and remote methods really deserves a high evaluation and will be of interest abroad. This will lead to the citation of his publications by foreign authors, which is currently lacking in his scientific output.

6. Conclusion

In summary of what has been stated, I declare that with the scientific production presented and with his educational and teaching activities, the candidate Assoc. Prof. Dr. Kiril Filipov Yanchev satisfies the requirements of LDASRB and of the Shumen University of Higher Education for occupying the academic position "Professor", as well as the scientometric indicators.

I consider it justified to propose the candidate Assoc. Dr. Kiril Filipov Yanchev to occupy the academic position of "Professor" in the "Geodesy" department of "Episkop Konstantin Preslavski" SHU under professional direction 5.7. "Architecture, construction and geodesy" (Photogrammetry and remote methods).

04. 10. 2022
SHUMEN

MEMBER OF THE JURY:
(Assoc. Prof. Dr. Eng. Plamen  Ivanov)