

OPINION

on a competition for academic position of "Associate Professor"
in a professional field 5.7. „Architecture, civil engineering and geodesy” (General, Higher and
Applied Geodesy)

The competition was announced in the SG, Issue 70 of 07.08.2020

Candidate: Chief assist. Dr. Krasimira Kuneva Kirilova

Member of the scientific jury: Associate Professor Dr. Eng. Sabin Ivanov Ivanov

1. General characteristics of the applicant's research and scientific activities

The candidate for participation in the competition for the academic position "Associate Professor" in the Department of Geodesy of Shumen University "Bishop Konstantin Preslavski" works at the same university from 15.09.2014 to 15.09.2018 and from 07.10.2019. so far. After studying for a PhD, she defended her dissertation on "General, Higher and Applied Geodesy" on the topic of „Study of the methods of modelling geoid in local areas of the territory of Bulgaria“ in 2018. All scientific production outside the dissertation is also entirely in the field of geodesy, including using modern research methods, technical means and application software. The applicant is included in the register of academic staff and protected dissertation papers in NACID.

In the competition for "Associate Professor", the candidate participates with monographic work and 12 other publications, of which two articles in a Journal of “Geodesy, Cartography, Land Management“, three articles in a journal – "Journal scientific and applied research" (licensed in EBSCO), 5 publications in the yearbook of the Faculty of Technical Sciences of the University of Shumen and two articles in SocioBrains, Issue 70 and 71. The candidate is an independent author of 8 of the publications and has indicated 17 citations to 5 of his works. He participated in a scientific and scientific and educational project.

All works of the candidate, presenting his research and applied research activities, are in the field of the competition and comply with the requirements of the normative documents, as follows:

A – Indicator 1	50 p.
B – Indicator 3	100 p.
G – Sum of Indicators 5 -11	200 p. (8 individual publications of 20 points each, 4 co-authored publications of 10 points each)
D – Sum of Indicators 12 – 15	51 p. (17 citations of 3 points)
Total	401 p.

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

Chief Assistant Kirilova started teaching as an assistant in the Department of Geodesy at the University of Shumen on 15.09.2014 to 15.09.2018. After a short break, on September 7, 2019 she was elected chief assistant in the Department of Geodesy, taking up this position at the time of the announcement of the competition. Teaches different disciplines from the curriculum of the Faculty of Technical Sciences at the University of Shumen. There is no information about the annual horarium in the candidate's disciplines, as well as the number of lecture courses developed, cycles with laboratory exercises and/or seminars led by graduates, course projects, etc. Despite the lack of data, I believe that during the five years of work as an assistant and Chief assistant. Dr. Eng. Krasimira Kirilova has gained sufficient pedagogical experience and has a sufficiently good preparation for work as a habilitized teacher.

3. Main scientific and applied scientific contributions.

The contributions from the research and pedagogical activity of the candidate can be combined in the following areas:

3.1. There has been an addition and attempt to update existing methodologies – Kirilova, K. Basic concepts for satellite gravimetry – satellite gravity gradiometry and satellite tracking. Monograph: University Publishing House "Bishop Konstantin Preslavski", Shumen, 2020, ISBN 978-619-201-415-5;

3.2. A methodical basis has been established for future research in the study of the Earth's outer gravitational field – Kirilova, K. Basic concepts for satellite gravimetry – satellite gravity gradiometry and satellite tracking. Monograph: University Publishing House "Bishop Konstantin Preslavski", Shumen, 2020, ISBN 978-619-201-415-5;

3.3. The theoretical foundations and practical possibilities of satellite gravitational gradiometry, a leading technology for studying earth's outer gravitational field, are presented in a systematic form. Information related to modern projects for the realization of earth's gravitational field definitions by satellite gradiometry methods and systems (SG) and satellite-satellite tracking system (SST) is not presented in the Bulgarian literature – Kirilova, K. Basic concepts for satellite gravimetry – satellite gravity gradiometry and satellite tracking. Monograph: University Publishing House "Bishop Konstantin Preslavski", Shumen, 2020, ISBN 978-619-201-415-5;

4. Importance of contributions to science and practice

Theoretically, the applicant's contributions are related to research in the field of geodesy.

In 8 of the publications proposed for participation in the competition, the candidate participates independently and in 4 is a co-author. The works are dominated by research in the field of gravimetry, satellite gravitational gradiometry, as well as the use of a modern research toolkit including apparatus and software. This gives me reason to believe that the main contributions to the works submitted for participation are on the subject of the competition and are the personal work of the candidate.

5. Critical notes and recommendations

The candidate's audience activity complies with the regulatory requirements, both quantitatively and as content. However, it is seen that only 4 of the articles were published in an edition outside the structure of the university where the applicant works. It would be good in the future for the candidate's audience activity to focus mainly on more specialized indexed publications abroad, suitable for publication on his/her scientific specialty.

I would recommend that the applicant seek opportunities to participate in national and international projects with related universities and scientific organizations to implement their scientific achievements in the field of geodesy, as well as to promote results among a wider range of specialists.

CONCLUSION

Chief assist. Dr. Krasimira Kuneva Kirilova has presented for participation in the competition for "associate professor" sufficient scientific production, aimed mainly at the field of geodesy for solving real problems in the field of geodetic practice. The submitted developments are at a good theoretical level, with a sufficient number of citations and meet the requirements of the regulating documents. The applicant's pedagogical experience also meets the requirements. All of this gives me sufficient reason to suggest that I should be the head of the Chief assist. Dr. Krasimira Kuneva Kirilova to take the academic position "Associate Professor" in the Department of Geodesy of the "Bishop Konstantin Preslavsky" University of Shumen in a professional field 5.7. „Architecture, civil engineering and geodesy" (General, Higher and Applied Geodesy).

23.10.2020

Member of the scientific jury:
/Assoc. prof. Eng. Dr. S. Ivanov/

