

## REVIEW

ИНСТИТУТ ЗА КОСМИЧЕСКИ ИЗСЛЕДВАНИЯ И ТЕХНОЛОГИИ – БАН	
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On a procedure for academic position “Associate Professor” in the filed 4. Natural sciences, mathematics and informatics; professional field 4.4 Earth Sciences; Scientific specialty "Earth Remote Sensing", announced in State Official Journal, issue. 98 / 13.12.2019 by Space Research Institute at BAS

**Candidate:** Assistant Prof. PhD Alexander Georgiev Gikov

**Member of the scientific jury:** Assoc. Prof. PhD Stoyan Nedkov, National Institute of Geophysics, Geodesy and Geography – BAS

The Assistant Professor Alexander Georgiev Gikov from the Department of Remote Sensing and Space of the Institute for Space Research at the BAS is the only applicant in the procedure for Associate Professor. The procedure complies with all the requirements of the Academic Staff Development Act, the Regulations for its implementation and the Rules for the conditions and procedures for acquiring academic degrees and occupying academic positions at SRTI-BAS.

### **Short biography of the applicant**

Alexander Gikov is born in 1970. He graduated from the Faculty of Geology and Geography at Sofia University “St. Kliment Ohridski ”in 1995. Since 2000 he has been working consecutively as a specialist, research associate and assistant professor in the section “Remote Sensing and GIS” of SRTI-BAS. Since 2019, she holds a PhD in the field of Remote Sensing of the Earth and Planet Studies. He has participated in a number of research and applied projects, and is an author or co-author in 62 scientific publications. The applicant's main scientific activity is in the field of the application of remote evictions in the landscape studies, natural risk assessment and geomorphology.

### **Fulfillment of the minimum national requirements for occupying an academic position Associate Professor**

The applicant has submitted an author's reference for the fulfillment of the minimum national requirements according to which by “group of indicators A” there are 50 points (with a minimum of 50 points required), by a “group of indicators B” 188.9 points (with a minimum of 100 points required), by “group of indicators D” 281,4 points (with a minimum of 220 tons required), by “group of indicators D” 63 points (with a minimum of 60 points required). The check of the submitted materials in the different categories shows that the points have been calculated correctly, which makes me to conclude that the candidate meets the minimum national requirements for occupying the academic position of Associate Professor.

## Research activity

The applicant has submitted 34 scientific publications to participate in the procedure. 10 of which fall in “category 4” of the national requirements for refereed and indexed publications in world-renowned databases (Web of Sciences and Scopus), and 24 fall in “category 8” for non-refereed peer-reviewed scientific publications, all in scientific conference proceedings. The peer-reviewed publications are distributed as follows: 18 are in Bulgarian and 16 are in English; 18 have been published in Bulgaria and 10 abroad; 8 are individual, 11 co-authored as lead author and 10 co-authored. I am a co-author in three of the publications (B4\_4, B4\_7 and D8\_4) and accordingly have not evaluated them. There are 15 citations, which is enough to meet the national minimum requirements.

The scientific contributions of the publications, presented by the applicant, are summarized in three main aspects: 1) Development and improvement of the methodology for the study of the natural environment through the application of geoinformation technologies and landscape methods; 2) Application of geoinformation technologies for the study of natural hazard and risk assessment; 3) Application of remote sensing methods for crop mapping. Significant contribution is the research on glacial and periglacial forms by remote and terrestrial methods, which helps to clarify the paleogeographic situation in Bulgaria for different past periods (publications B4\_3, B4\_8, G8\_16, B 4\_1, B4\_, B4\_, B4\_, B4\_, B4\_, B4\_, B4\_3). An important contribution to the development of landscape research in the country is the development of a methodology for large-scale mapping of landscapes through aerospace images (D8\_2, D8\_7). The development and application of a methodology for geomorphological risk assessment is the result of many years of purposeful research by the author, which is his original contribution (B4\_6, D8\_8, D8\_15, D8\_17, D8\_18, D8\_19, D8\_20, D8\_21).

## Conclusion

The analysis of the research activity shows that the applicant has extensive theoretical and methodological background and extensive practical experience in the field of remote sensing of the earth and their application in a number of fields with scientific and applied aspects. His works have a significant scientific contribution in the field of the announced procedure. I personally know Alexander Gikov as a competent, precise and thorough researcher. On the basis of the findings and in accordance with the established normative requirements, procedural rules and criteria for occupying academic positions, I give a positive review to the applicant in the competition Alexander Georgiev Gikov. I will vote for him to occupy the academic position of Associate Professor at SRTI-BAS in the field of the announced procedure.

Sofia



(Assoc. Prof. Stoyan Nedkov)