

OPINION

by

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Subject: competition for the academic position of "professor" in Professional field 4.4. Earth Sciences, scientific specialty "Physical Geography, Landscape Science and GIS", at the Department of Geography at the National Institute of Geophysics, Geodesy and Geography, with candidate Assoc. Prof. Dr. Stoyan Tsvetanov Nedkov

This opinion is prepared on the basis of Order № P - 01/98 of 03.07.2020 of the Director of the National Institute of Geophysics, Geodesy and Geography, based on the Decision of the Scientific Council of NIGGG (Minutes № 25/02.07.2020).) and Decision taken at the 1st meeting of the appointed Scientific Jury. It complies with the requirements of the Academic Staff Development Act in the Republic of Bulgaria and the Regulations for its implementation in the National Institute of Geophysics, Geodesy and Geodesy. The competition for the academic position of "professor" in Professional field 4.4. "Earth Sciences", scientific specialty "Physical Geography, Landscape Science and GIS" at the Department of "Geography" at NIGGG was announced in State Gazette № 21 from 03.03.2020, and in the regular term documents were received only from one candidate - Assoc. Dr. Stoyan Nedkov.

Candidate details

Stoyan Tsvetanov Nedkov was born in 1969. He completed his higher education in 1997 at Sofia University "St. Kliment Ohridski". After graduating, from 1998 to 2003 he was a teacher of geography in English at the Second English High School, Sofia. He has been a doctoral student since 1999, successfully defending his dissertation in 2002. The following year, 2003, he won a competition for a research associate at the Institute of Geography at the Bulgarian Academy of Sciences, and in 2009 - for a senior research associate at the same institute. He remained in this position, respectively associate professor, after the unification of the Institute of Geography with other institutes and the establishment of the National Institute of Geophysics, Geodesy and Geography. Only for about a year - from 2014 to 2015 he was an associate professor at Sofia University "St. Kliment Ohridski". For 17 years of scientific experience Assoc. Prof. St. Nedkov has gained significant experience in scientific, scientific-applied, practical and teaching activities in the field of geography, as evidenced by the evidence presented by him for participation in the competition. His main research interests are related to the application of Geographic Information Systems in the field of geographical and related sciences. In this regard, he is well versed in the main software in this field - ArcGIS, MapINFO, Global Mapper, ENVI, ERDAS and other specialized applications running in a GIS environment. He has extensive administrative experience - Head of the Department of Geography, Head of the GIS Section and Scientific Secretary of the NIGGG. In the period

2014-2018 he held the elected position of Chairman of the Bulgarian Geographical Society. He is a member of a number of professional international and national scientific organizations. He was a guest editor of several international specialized publications, as well as editor-in-chief of a magazine of the Bulgarian Geographical Society and a member of the editorial boards of two prestigious international magazines: "One Ecosystem" and "Plos One". He speaks excellent English and Russian languages.

The analysis of the materials submitted by the candidate

The candidate has submitted all required documents and materials and documents for participation in the competition, according to the accepted requirements in the Regulations for application of law in the National Institute of Geophysics, Geodesy and Geography.

An assessment was made of the research activity of the candidates for the academic position "Professor" in the Professional Field "Earth Sciences", defined according to the Classifier of Areas of Higher Education and Professional Fields, approved by Decree № 125 of the Council of Ministers of 2002 (SG, issue 64 of 2002), as follows:

Indicator A - Dissertation for the award of educational and scientific degree "Doctor"

The candidate has successfully defended a dissertation for the degree of "Doctor" in 2002 on "Features of the structure and dynamics of lowland landscapes in Western Central Bulgaria" in 2002.

Required points - 50 Proven points by the candidate - 50

Indicator C - Habilitation work or scientific publications in referenced and indexed in world-famous databases

According to this indicator, the candidate has presented 20 articles and chapters in specialized monographs, published in renowned and indexed international publications. Stoyan Nedkov is an independent author of one of them and the first author of 7.

Required points - 100 Proven points by the candidate - 316

Indicator D - Publication activity

Associate Professor St. Nedkov is the author or co-author of 5 scientific publications in publications that are referenced and indexed in world-famous databases with scientific information and 30 in non-referenced journals with scientific review or in edited collective volumes. Of these, the candidate is the first author in 12 articles.

Required points - 220 Proven points by the candidate – 424

Indicator E - Cited

The works of St. Nedkov is quoted in international and national publications. The candidate presented evidence of citations found by him in 19 of his publications 558 times. The most cited is his article co-authored with Burkhard, B., Kroll, F., Nedkov, S., Muller, F., published in the journal Ecological indicator in 2012, which was cited 202 times.

Required points - 120 Proven points by the candidate - 2790

Indicator E - Research and education

Associate Professor Stoyan Nedkov has an active educational activity. He has supervised three successful PhD students. Although there are no teaching points, it should be noted that he has taught courses abroad - the universities of Jyväskylä (Finland) and Salzburg (Austria), as well as master's and bachelor's courses at Sofia and Veliko Tarnovo universities. The candidate has been the leader of 2 and participant in 5 international scientific and educational projects and respectively 3 and 4 national projects.

Required points - 150 Proven points by the candidate - 400

Contributions

The candidate Stoyan Nedkov presented a correct reference for his contributions, which he grouped in 3 directions:

I. Development and improvement of the methodology of landscape research and the application of the concept for landscape and ecosystem services.

II. Application of geoinformation technologies for sustainable environmental management and information support of research and management activities with GIS based information and cartographic products.

III. Physico-geographical studies of the risk of dangerous natural phenomena on the territory of the country, analyzes and assessment of the ecological and paleogeographical condition of high mountain areas.

These contributions can be defined as methodological and scientific-applied. The most important, in my opinion, are the activities of the candidate related to the innovative application of GIS methodologies in various fields of geographical science, and it can be argued that Assoc. Prof. Stoyan Nedkov is one of the leading experts in this field in Bulgaria. His decisions and results are important for clarifying regional specificities, which helps to clarify important scientific issues and are often helpful in making management decisions related to the conservation and rational use of natural resources, as well as for assessing natural risks.

Personal impression and recommendations

For the professional qualities of Assoc. Prof. St. Nedkov I had the opportunity to convince in my personal contacts with him. I know him from a joint participation in an international project related to the arsenic pollution of the Ogosta River valley. I am impressed by his high professionalism, his thoroughness and in solving each specific problem. He is extremely correct in his relationships with other colleagues and works very well in a team.

As a recommendation to Assoc. Prof. St. Nedkov I would point out that he should further expand his publishing activities in international journals to acquaint foreign scientists in the field of groundwater with his innovative methodologies and interesting and unique results for specific problems and regions in Bulgaria.

Conclusion

The scientific and scientific-applied activity of Assoc. Prof. Dr. N. Nedkov exceeds the recommended criteria for holding the academic position of "Professor" at the National Institute of Geophysics, Geodesy and Geography. In this regard, I propose that Assoc. Prof. Dr. Stoyan Tsvetanov Nedkov be elected "Professor" in Professional Field 4.4 "Earth Sciences", scientific specialty "Physical Geography, Landscape Science and GIS", at the Department of Geography at the National Institute of geophysics, geodesy and geography.

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Sofia

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