

POSITION

Associate Professor Guergana Guerova

Member of scientific jury for competition for the position "Associate professor"
in professional field 4.4. Earth Sciences and, specialisation "Meteorological Experimental
Data"

This position was prepared on the basis of the Order of the Director General of NIMH No. ND-04-31 / 08.10.2021 and the decision of the meeting of the scientific jury of 15.10.2021. It is tailored to the Law on the Development of Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for its implementation (PPZRASRB) and the NIMH Rules on ZRASRB.

I. Requirements to the candidate

Art. 29 (1) and. 29b of ZRASRB, Art. 60 of PPZRASRB and Art. 56 (1), (2) and 57 (1) of NIMH Rules on ZRASRB

Head assistant professor dr. Lilia Bocheva, graduated in 1992 at the Faculty of Physics of Sofia University "St. Kliment Ohridski" and has a master's degree in Physics with specialisation in Meteorology. In 2014 she defended her PhD thesis on "Climate variations and estimates of extreme meteorological phenomena by convective storms over Bulgaria (1961-2010)." Since 1993 she has worked at the National Institute of Meteorology and Hydrology (NIMH), holding the positions of technician (until 1997), physicist (until 2001), research associate III degree (until 2007) and head assistant professor (currently). Since 2019 she has been the head of the Meteorological Experimental Data Department and in 2020 she was elected Director of the Department Meteorology. Dr. Bocheva's research activities are in the field of extreme weather and climate events.

The inspection of the submitted materials for the competition did not reveal a violation of the procedure for the eligibility of the candidate to the competition and I accept the submitted documents for review.

II. Requirements for research and development activities

Art. 29 (1) items 1, 3, 4, 5, 6, (2) and (3); 29b (1) of ZRASRB, Art. 60 (1), items 3, 4, 5, (2) and (4) of PPZRASRB and Art. 56 (1) items 1, 4, 5, 6, 7, (2) and (3) of NIMH Rules on
ZRASRB

The scientific production presented for review by dr. Bocheva meets the requirement to not repeat the publications submitted for the acquisition of the scientific degree "Doctor". In addition, provided are: 1) the minimum requirements for the academic position of "Associate Professor", 2) citations and 3) scientific contributions.

Publications. In the presented by Head assistant professor Bocheva list of publications for this competition includes 30 titles. They are in: 1) international journals with SJR - 6, 2) papers at international conferences - 7, 3) Bulgarian journals with scientific review - 10, 4) papers in edited collective volumes - 7. Publications in English are 26 and Bulgarian language are 4. In the Scopus database are referred 10 of the titles presented for the competition.

Citation. Citations were noticed in 7 of the publications submitted for the competition. The total number of citations is 26, with 3 publications cited once and the rest with 3, 4, 6 and 7 citations. It should be noted that 18 of the publications in which the work of Head assistant professor Bocheva is cited are from foreign authors, which clearly shows that her work is visible and significant internationally.

Projects. Head assistant professor Bocheva has led 2 national projects and participated in 17 national and 4 international research and applied research projects.

Research and applied research. The research work of Head assistant professor Bocheva is focused on the study of atmospheric circulation and related extreme weather and climate events in Bulgaria such as thunderstorms, hail, potentially dangerous precipitation and tornadoes. The scientific and applied activity of Head assistant professor Bocheva is in two directions: 1) building and developing a structured database of primary and secondary meteorological information and 2) digitisation of meteorological information archive.

Scientific contributions. The main scientific contributions of Head assistant professor Bocheva can be summarised as follow: 1) climatic regionalisation of potentially dangerous precipitation for a period of 90 years, 2) assessment of spatiotemporal characteristics of thunderstorms in Bulgaria, 3) assessment of the frequency of hail precipitation and their variations over a 100-year period and 4) subjective classification of the synoptic conditions and the paths of the Mediterranean cyclones for the Extreme Meteorological Phenomena (EMP). I would like to draw attention to the fact that the

analysis of long time series of observations is related to systematic and precise pre-processing of meteorological information such as quality control, filling in time series, statistical tests for significance of samples and others. Although this is not reflected as a contribution, it is an essential stage of research work. The length of the time series of the analysed EMP is unique for Bulgaria and this makes it very useful in the operational work of NIMH. NIMH maintains the public warning system within the European MeteoAlarm system for the presence of dangerous and very dangerous meteorological phenomena. In addition, the work is widely used in the service of ministries, government agencies, regional and municipal structures, the preparation of plans for risk assessment and prevention of hazardous meteorological phenomena and the development of a strategy for adaptation to climate change.

III. Opinions, recommendations and notes

I think that the materials presented for the competition clearly show that Head assistant professor Bocheva is an established scientist with extensive experience in the study of extreme weather and climate events in Bulgaria. I am confident that as an internationally recognised scientist she will take an active part in raising the international prestige of the Institute.

Conclusion

The examination of the submitted materials for the competition did not reveal any violations in the procedure. The requirements of Art. 29 (1), (2), (3), Art. 29b (2), (3) of ZRASRB, Art. 60 (1) (2) and (4) and Art. 61 (1), (3) of the PPZRASRB, Art. 56 (1), item 1, item 4, item 5, item 6, item 7, (2), (3) of the NIMH Regulations on ZRASRB are met.

Based on my acquaintance with the documents of the candidate in the competition and the evaluation of the publications presented by her, I give a positive assessment of the overall work and recommend the choice of **Head assistant professor Lilia Bocheva** for **Associate Professor**.

Date.

MEMBER OF SCIENTIFIC JURY:

Assoc. prof. Guergana Guerova