



## STATEMENT

by Prof. eng. Irina Ribarova, PhD  
member of the scientific jury in the competition for  
for the academic position of professor in professional field 5.7. Architecture, Civil Engineering and  
Geodesy

This statement is prepared on the basis of the Order of the Director General of NIMH No. ND-04-3 of 29.01.24 and the decision of the scientific jury meeting of 09.02.2024. It complies with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, its Implementing Regulations and the Regulations of NIMH under the Law.

### I. Requirements for the applicant

under Article 29 (1) and 29b of the Law on the Development of Academic Staff, Article 60 of the Implementing Regulations and Procedure and Articles 56 (1), (2) and 57 (1) of the Regulations of the NIMH

The candidate **Snezhanka Stoyanova Balabanova** has a Master's degree in "Civil Engineer water supply and sewerage" (diploma from UASG series АЯ No. 009708 from 1981) and a PhD in the scientific specialty "Engineering Hydrology, Hydraulics and Water Management" (diploma No. 34800 from 12.01.2011). Since 1986 he has worked at the National Institute of Meteorology and Hydrology, holding successively the following positions: Hydrological Engineer, Associate Professor at the Hydrological Forecasts Section of the Hydrology Department and Associate Professor, Head of the Hydrological Forecasts Section of the Forecasting and Information Services Department.

After reviewing the materials submitted for the competition, I conclude that there were no irregularities in the procedure and the applicant is eligible.

### II. Requirements for research and applied activities

Article. 29 (1), p. 1, p. 3, p. 4, p.5, p.6, (2) и (3), Article. 29б (1) of the Law on the Development of Academic Staff, Article. 60 (1), т. 1, т. 3, т. 4, т. 5, т.6, (2) и (4) of the Implementing Regulations, Article. 56 (1), т. 1, т. 4, т. 5, т. 6, т. 7, (2), (3) of the Regulations of the NIMH

The applicant has submitted:

**To the Group C indicators:** 12 publications in refereed journals. All publications are co-authored. The points are calculated as required by law. The total number of points is 133.19 (>100 points).

**To the group D indicators:** 6 publications in refereed journals and 16 publications in non-refereed journals. All publications are co-authored. Points are calculated as required by law. The total number of points is 220.43 (>200 points).

**To the indicators of group E:** Evidence of multiple citations is provided, with the total number of points (694) significantly exceeding the minimum required (100).

**To the indicators of group F:** The candidate has successfully supervised three PhDs already graduated (120 pts.), participated in 3 national research projects (30 pts.), participated in 5

international research projects (100 pts.), supervised 6 national projects (120 pts.), supervised 2 international projects (80 pts.) and attracted funds for one international project (30 pts.). Total points 480 (>150 points).

In addition to the minimum requirements, the applicant has submitted a list of 5 scientific and 2 applied scientific contributions as follows:

**Scientific contributions:** creation of a methodology for flood threat assessment; hydrological modelling and analysis of the results - Early Warning Systems; study of the possibilities and application of artificial neural networks in hydrological forecasting; study of the impact of climate change on water resources and flood types in Bulgaria; use of satellite data in runoff modelling.

**Scientific and applied contributions:** Management and organization of activities for the creation of an archive and database of flood incidents; Creation of a GIS database for application in hydrological modelling and analysis.

### **III. Comments, recommendations and observations**

A Scopus reference for the candidate as of 8 April 2024 shows 16 documents (publications), 122 citations from 117 documents and H-index = 5. I consider this reference a sufficiently reliable verification of the information presented by the applicant.

I accept the stated scientific contributions, but I believe that the creation of a methodology for flood risk assessment should rather be classified as scientific and applied contributions, which does not diminish its importance.

I have no personal impressions of the candidate.

### **Conclusion**

From my review of the materials submitted for the competition, I find no irregularities in the procedure. The requirements of Article 29 (1), (2), (3) of the Law on the Development of Academic Staff, Article 60 (1) (2) (3) and (4) and Article 61 (1), (3) of the Implementing Regulations, Article 56 (1) (1), (3), (4), (5), (6), (7), (2), (3) of the Regulations of the NIMH have been complied with.

On the basis of my perusal of the applicant's documents for the competition and in accordance with Article 29b (2), (3) of the Law on the Development of Academic Staff of the information submitted by the applicant, I give a positive evaluation for the selection of the applicant.

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**Member of the scientific jury:**