



## STANDPOINT

By Assoc. Prof. Tatiana Spassova, PhD

member of the scientific jury in a competition for the academic position of "Professor" in professional field 5.7 Architecture, construction and geodesy, Scientific specialty "Engineering hydrology, hydraulics and water management" The competition was published in the State Gazette No. 100/01.12.2023.

This position is prepared on the basis of Order of the Director General of NIMH No № НД-04-3 from 29.01.2024 and the decision of the meeting of the scientific jury from 09.02.2024. It is in accordance with the requirements of the Academic Staff Development Act in the Republic of Bulgaria (ZRASRB), the Regulations for its implementation (PPZRASRB) and the Regulations of NIMH under ZRASRB.

### I. Requirements to the candidate

under Art. 29 (1) and Art. 29b of ZRASRB, art. 60 of PPZRASRB and Art. 56 (1), (2) and Art. 57 (1) of the Regulations of the NIMH under ZRASRB

Assoc. Prof. Dr. Snezhanka Balabanova, the only candidate in the competition, received a master's degree in 1981. at the University of Architecture, Construction and Geodesy, Sofia, specialty "Civil engineering and plumbing". Having obtained master's degree, she worked as an engineer at the National Institute of Meteorology and Hydrology - BAS (NIMH) in Sofia for 2 years. After a 4 years break, during which time she worked as a designer in the Ministry of Construction, she came back to NIMH, where she is working until now, gradually growing from a hydrologist engineer to an Associate Professor and Head of a section. In 2011, she obtained a PhD degree with a dissertation "Operational hydrological modeling of river runoff and resource assessments with the application of GIS", and in 2012 she successfully met the requirements and was appointed as Associate Professor.

Assoc. Prof. Balabanova's scientific research and operational activities are related mainly to hydrological and hydraulic modeling, work with GIS, preparation of hydrological forecasts, development and maintenance of flood early warning systems.

Publications presented for the competition cover the period after 2012, i.e. after acquiring the position of "Associate Professor". All presented materials were carefully checked and no deficiencies and violations of the procedure for eligibility of the applicant had been found.

### II. Requirements for research and applied activities

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

As seen from the presented materials, all indicators of the candidate Assoc. Prof. Dr. Snezhanka Balabanovaa exceed the minimum requirements for acquiring the academic position "Professor" in the professional field 5.7 Architecture, construction and geodesy, as follows:



- Creation of a methodology for assessing the threat of floods;
- Hydrological modeling and analysis of the results. Early warning systems;
- Development of prognostic systems for the catchment basins of the Iskar and the Struma rivers;
- Study of the influence of climate change on intense rainfall, the main factor for flood occurrences;
- Use of satellite data in runoff modeling with assessment of reliability of satellite data;
- Management and organization of the activities for the creation of an archive and database of occurred floods, as well as the creation of a GIS database for applications in hydrological modeling.

Prof. Balabanova's presented activity is mainly from work on projects and in team, which is in addition to her operational tasks. In many of the activities, she is the initiator and leading scientist, with a significant contribution to the development and realization of the tasks.

### III. Opinions, recommendations and notes

I have known Associate Professor Balabanova for more than 20 years, but I have more direct impressions of her as a person and a scientist mainly after 2010.

During these years I witnessed her dedication to the colleagues, her willingness to help with knowledge, guidance, advice, both of a scientific nature and on purely life problems. Under her guidance many young specialists were trained, introduced to the activities of hydrological service to society, sent to specializations abroad. Unfortunately, some of these young people, left NIMH. However, three young scientists successfully defended their PhD theses.

Prof. Balabanova monitors and shares the latest research by Bulgarian and foreign authors and is well informed in a timely manner about the latest achievements, models and products in the field. She is able to generate ideas, skillfully analyze and accurately assess where her own and other people's ideas could be applied in the NIMH's activities. She has enviable work capacity, competence and collegiality. She has proven her ability to lead both national and international projects.

### Conclusion

The inspection 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 PPZRASRB Art. 56 (1), item 4, item 5, item 6, item 7, (2), (3) of the Regulations of NIMH under ZRASRB are FULFILLED.

Based on the acquaintance with the documents and the evaluation of the candidate's publications, I give my clear and definitive opinion that Assoc. Prof. Dr. Snezhanka Balabanova deserves to be awarded the academic position of "Professor".

Member of the scientific jury:

/Assoc. Prof. Tatiana Spassova/