POSITION

Prof. DSc Ekaterina Batchvarova, corresponding member of BAS
Member of scientific jury for competition for the position "Professor"
in professional field 4.1. Physics, specialization "Meteorology" (Stochastic modelling in meteorology and hydrology) at division "Specialized forecasts"
Department (Forecasts and Information Service),
announced in State Newsletter (DV, 62/06-08-2019)

This position was prepared on the basis of the Order of the Director General of NIMH No. ND-04-18 / 02.10.2019 and the decision of the meeting of the scientific jury of 18.10.2019. 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

Assoc. Prof. DSc Neyko Mateev Neykov graduated from the Faculty of Mathematics at Sofia University "St. Kliment Ohridski "in 1976, received a degree in Candidate of Mathematical Sciences from the Higher Education Academy in 1996 and a DSc in 2016 from IMI-BAS. He has been an associate professor (docent) since 2000 at NIMH-BAS, where he joined in 1988 as a research associate of the 1st degree.

The materials of this competition are presented in a detailed, clear and correct manner and comply with the procedure for admission of candidates to the specific competition.

II. Requirements for research and development activities

Art. 29 (1) items1, 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

Assoc. Prof. Neykov correctly emphasizes that the publications presented by him for the competition do not repeat those included for the acquisition of a scientific degree "Doctor of Sciences" and for the acquisition of an academic position "Associate Professor". Separately, the documents provide all the necessary materials that demonstrate the fulfillment of national minimum requirements for the academic position of "professor".

A monograph co-authored with Assoc. Prof. Plamen Neytchev was presented for the competition. The authors present also a signed protocol declaring equal contribution of each of them. From 12 publications in the documents proving the fulfillment of the minimum requirements, two are in journals with Q1, one with Q2, two with Q3 and seven are book chapters. 56 articles are citing these articles, with the greatest response being noted for Van Gelder et al., 2001, "Regional frequency analysis of extreme wave heights: trading space for time" (No. 13 in the document proving the fulfillment of the minimum requirements) and Neykov et al., 2007, "Robust detection of discordant sites in regional frequency analysis" (No. 11 in the same list). The list of competition publications includes 8 more articles in journals and conference proceedings, as well as four technical reports.

As Assoc. Prof. Neykov points out, his scientific contributions are in the field of probabilistic-statistical methods for modeling and data analysis. In particular, in the creation of stochastic models of daily rainfall in Bulgaria (12 of the publications included in the competition); in the field of development of the methodology of extreme values (4 publications); in the field of stochastic modeling of NO2 hourly concentrations (one publication that I do not discuss because of co-authorship); in the field of data analysis in hydrogeology (2 publications); in the field of analysis of data from psychophysiological and biochemical experiments (2 publications); in the field of robust statistics (one publication).

I am convinced that the monograph "Stochastic Daily Precipitation Models for Bulgaria" by Neykov and Neytchev, published in 2019, summarizing the remarkable experience and knowledge of the authors, will be sought and used by the scientific community in the field of meteorology and hydrology. Apart from the high scientific level of the results, this work is characterized by excellent English language, which will undoubtedly allow wide use of the results outside our country.

Assoc. Prof. Neko Neykov's full research activity shows the great benefit to science and practice of applying probabilistic-statistical methods for studies on physical, chemical, biological, psychophysiological and other data sets. His work in the field of modeling daily rainfall and extreme values are particularly useful for research in meteorology and hydrology. I consider Assoc. Prof. Nekov's contribution in this area indisputable.

During his twenty years of work at the NIMH-BAS and NIMH, Assoc. Prof. Neykov has managed 3 projects of the NIMH Research Plan; two within the framework of bilateral cooperation under agreements of BAS (Göttingen University in Germany and Tampere University, Finland); has actively participated in 4 COST Actions and in 8 applied research studies with external funding, leading 4 of them. The recent contractual tasks with the Sofia Municipality have a particularly relevant and significant social impact.

Assoc. Prof. Neykov also has extensive experience in teaching at the IMI of Sofia University, University of Turin, Italy, and of training for young scientists in the field of statistics.

Assoc. Prof. Neykov is a wecome partner at a number of universities in Western Europe. Characteristic of him is that he works in teams, which is also required by the different nature of the information being processed. However, his personal knowledge, skills and experience are clearly evident. It is also characteristic, that he has remarkable ability to explain the results of his research to young scientists and the general public.

III. Opinions, recommendations and notes

Assoc. Prof. Neykov has prepared his materials very precisely. Only minor inaccuracies in the numbering (of projects), the presentation of electronic coppies (lack of a page in publications) and other details that are not important are found. I have known Assoc. Prof. Neykov for many years and I can only regret that we have not been able to work more together so far.

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 the review of the documents submitted for the competition, the concrete results in the publications and my personal impressions, I evaluate the candidate positively and am convinced that Assoc. Prof. Neyko Neykov meets all the requirements for occupying the academic position of "professor" in professional field 4.1. “Physics”, specialization “Meteorology” (Stochastic modelling in meteorology and hydrology) at division “Specialized forecasts” Department (Forecasts and Information Service) of NIMH.

Date: 12.12.2019 r. **MEMBER OF SCIENTIFIC JURY:**