

OPINION

about Associate Professor Dr. Dicho Stoyanov Stratiev
in the concourse for academic position "Professor"
in the professional field 4.6 "Informatics and Computer Science"
specialty "Informatics"

Reviewer: Prof. Stefka Stoyanova Fidanova

By Order No 673 of 30.11.2021 of the Director of the Institute of Biophysics and Biomedical Engineering at the BAS, Prof. Tania Pencheva on the grounds of Art. 29a of the Act on Development of the Academic Staff in the Republic of Bulgaria and the decision of the Scientific Council of IBPhBME-BAS (Protocol No. 14 of 29.11.2021), I was appointed a member of the scientific jury under the procedure for the academic position of "Associate Professor" in the professional field 4.6 "Informatics and Computer Science", scientific specialty "Informatics", announced for the needs of section "Bioinformatics and Mathematical Modelling" in the State Gazette no. 84/08.10.2021. As a member of the Scientific Jury I have received all the documents attached to the application to the Director of IBPhBME-BAS of the only candidate for the competition, Associate Professor Dicho Stoyanov Stratiev.

According to the Act on Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and the specific requirements introduced in the Regulations of IBPhBME-BAS, the applicants must meet the following requirements:

1. Have acquired a doctorate degree in education and science;
2. Have held the academic position of "Associate Professor" at the same or another higher education institution or scientific organization for at least two academic years;
3. Have submitted published monographs or equivalent publications in specialized scientific editions which do not repeat the ones submitted for the acquisition of the educational and scientific degree "Doctor", the scientific degree "Doctor of Sciences" and for the occupation of the academic position "Associate Professor";
4. Have presented other original scientific works, publications, inventions and other scientific and applied scientific works which are evaluated in aggregate;
5. Meet the national minimum requirements;
6. Not to have plagiarism proven by statutory order in scientific works.

Associate Professor Dicho Stoyanov Stratiev has received educational and scientific degree "Doctor" in 2002, Associate Professor in 2006 and Doctor of Sciences in 2010.

Dicho Stoyanov Stratiev has a total 250 publications, 130 with impact factor, 1 book and 1 patent. He has 1074 citations.

For Group B requirements, Dicho Stratiev has presented a monography, the total number points is 100 for required 100.

For Group G indicators, a total of 41 publications are presented: 18 with IF in Q1, 5 with IF in Q2, 9 with IF in Q3 and 5 with IF in Q4, 4 of them with an impact rank and 1 patent. The total number of points is 750 with required 220.

Dicho Stratiev submitted 1074 citations by other authors. All are with impact factor or impact rank. The total number of points is 2148 with required 120 under indicator D.

The candidate has a Doctor of Sciences degree. He was the supervisor of 10 successfully defended doctoral students. The total number of points is 325 for the required 100 on indicator E.

Associate Professor Dicho Stratiev fulfills and, by some indicators, significantly exceeds the national requirements, as well as the specific requirements of BAS and IBPhBME for the academic position of "Professor".

The contributions from the developments presented in the competition are in the field of chemistry and oil technology and the application of mathematical techniques such as intercriteria analysis, artificial neural networks, correlation and regression (linear and nonlinear) analysis and generalized nets.

The main scientific contributions of the candidate can be divided into two groups:

Scientific:

1. Application of intercriteria analysis for modeling the properties of oil and its derivatives.
2. Application of generalized nets, artificial neural networks and the nonlinear least squares method for modeling processes and properties in oil chemistry and technology.

Applied:

1. Significant improvement of the efficiency of the studied processes: primary oil refining, catalytic cracking, visbreaking, hydrocracking in pseudo-fluidized bed H-Oil, compounding (mixing) in the production of gasoline and diesel fuels.
2. The application of the intercriteria analysis for selection of suitable for refining types of oil in the refinery of LUKOIL Neftochim Burgas.

I do not know the candidate and I have no personal impressions. The materials presented by the candidate are complete and detailed. They contain the necessary information required by law. The contributions are presented concisely and summarized, with emphasis on the significant author's contribution.

CONCLUSION

According to the presented documents, the candidate Dicho Stoyanov Stratiev fulfills all the requirements of the law and the Regulations to it and the Regulations for the specific requirements for acquiring academic degrees and occupying academic positions at BAS and IBPhBME-BAS. I give a positive conclusion for the selection of Dicho Stratiev in the competition for the academic position of "Professor" in the professional field 4.6 "Informatics and Computer Science", scientific specialty "Informatics".

I propose that the Scientific Jury unanimously vote on a proposal to the Scientific Council of the IBPhBME at the Bulgarian Academy of Sciences to select Dicho Stratiev for the academic position "Professor" in the professional field 4.6 "Informatics and Computer Science", scientific specialty "Informatics".

19.01.2022