

OPINION

Subject: competition for the academic position of "professor" in the field of higher education 4. Natural sciences, mathematics and informatics; professional field 4.6 Informatics and computer sciences (Information technologies), announced in SG no. 48 of 26.05.2020

By a member of the scientific jury Ana Iovkova Proykova, Prof. Doctor Habil, Ph.D.
Faculty of Mathematics and Informatics of Sofia University "St. Kl. Ohridski "

Candidate Pavel Hristov Boytchev, PhD, Associate Professor, Faculty of Mathematics and Informatics, Sofia University "St. Kliment Ohridski "

By order of the Rector of Sofia University ПД 38-344 / 23.07.2020, I was appointed a member of the scientific jury in a competition for the academic position of 'Professor' at Sofia University in the field of higher education 4. Natural Sciences, Mathematics and Informatics; professional field 4.6 Informatics and computer sciences (Information technologies). A set of materials available electronically has been submitted for participation in the announced competition.

The only candidate in this competition - Pavel Hristov Boytchev, PhD, Associate Professor at FMI, Sofia University "St. Kliment Ohridski ", fully satisfies the minimum national requirements under Art. 2b, para. 2 and 3, of the RAS of the Republic of Bulgaria for holding the academic position of "professor" in PN 4.6. Informatics and computer science.

1. General description of the materials

All the necessary documents for participation in the competition are presented in a well-organized directory – the application form, the CV, diploma for educational - qualification degree "master", diploma for educational and scientific degree "doctor", diploma for academic position "associate professor", documents related to scientific papers (all publications, as well as the publications submitted for this competition), citations of publications, documents related to the minimum national requirements, reference for teaching and learning activities, incl. work with doctoral students, participation in and management of research projects, list of software products developed with the participation of the candidate.

The candidate Assoc. Prof. Dr. Boytchev participates in the competition with a monograph on the topic of the competition, (2019) the publishing house of Sofia University, four articles co-authored in scientific journals with impact (WoS / SCOPUS), four articles in refereed conference proceedings, two books co-authored.

For completeness of the analysis of all activities of Dr. Boytchev, I have considered all submitted materials, including those already used in previous competitions. However, the conclusion of the current opinion is solely based on materials purposefully presented to this competition – scientific papers, applied research (software developments), art-science applications (scientific movies, presentations). In this opinion I take into account all the training courses developed by the candidate.

2. Brief curriculum vitae of the candidate

The candidate was awarded a degree in higher education from the Faculty of Mathematics and Informatics, Sofia University in 1995; the scientific degree "Doctor" in the scientific specialty 01.01.12 Informatics (High Accreditation Commission, HAC, 2001). He holds the position "associate professor" in the scientific specialty 01.01.12 Informatics (HAC, 2006).

Pavel Boytchev's dissertation for obtaining the degree of DOCTOR is entitled "Language and system based on LOGO" with supervisor Assoc. Prof. Bozhidar Sendov.

Dr. Boytchev has specialized at the Stevens Institute of Technology, Center for Innovation in Engineering and Science Education, Hoboken, New Jersey, USA (2 years); at the University of Telecommunications, Chofu, Tokyo, Japan (2 years). His work in international teams provides the horizon that is needed for a professor at Sofia University.

3. General characteristics of the candidate's activity

Educational and pedagogical activity

The materials presented for the competition allow me to appreciate the high academic activity of the candidate - the 12 courses available for the students enrolled at the Sofia University are impressive. The electronic presentation allows the students to work out independently when they are prevented from being at the university campus. The efforts for the preparation of the lectures are high and Assoc. Prof. Dr. Boytchev should be congratulated for the successful presentation of the study material. Under his guidance, bachelors, masters and two doctoral students defended their dissertations.

More than 10 university disciplines have been created, in which no material from foreign lectures and books has been used. The illustrative material and the interactive applications generated through the author's educational software environments.

The assessment models developed by Assoc. Prof. Boytchev are practically embedded in disciplines taught at FMI, Sofia University. Their advantages and disadvantages are analyzed, which were used to upgrade these models, accompanied by a new analysis.

Scientific and applied science activity

Assoc. Prof. Boytchev is the author or co-author of 98 publications in various scientific journals (8 of them are included in the materials for the competition together with a monograph and co-authored two books. Participating in 85 conferences he has presented sectional and invited talks.

The candidate's contributions are: (1) established synergy of educational software, university disciplines and educational content; (2) the created programming language Elica, the Logo compiler; (3) a meta-editor has been implemented, with which metadata is created and managed; (4) Data on over 300 versions and dialects of the Logo programming language have been collected and structured through communication with developers and users, forum analysis and manual review of 50-year-old archives; (5) A metric has been proposed and demonstrated to determine how close two dialects are, both at the level of language constructions and at the level of a translator.

Dissemination activity

The candidate has created over 100 videos on scientific topics, which is extremely important for the promotion of science among the younger generation and the general public.

An excellent impression remains the proposed plan for future work, the results of which will undoubtedly have a positive impact on the scientific environment.

4. Assessment of the candidate's contribution and personal impression

The large number of talks presented at international fora, single-author publications, the monograph, and text-guides of undergraduate and graduate students convincingly demonstrate the candidate's personal contribution.

I have known Assoc. Prof. Boytchev personally for four years. The scientific conversations with him give the impression of a broadly educated researcher who presents his theses with a sense of humor and does not create tension in the debates that are typical within the scientific community.

Assoc. Prof. Dr. Boytchev is a responsible researcher and teacher. These qualities are especially important in today's world, where scientists often work in different environments. Only through successful collaboration with other researchers the sustainability of research is ensured.

CONCLUSION

The results achieved by Assoc. Prof. Dr. Pavel Boytchev in teaching and research fully comply with the specific requirements of the Faculty of Mathematics and Informatics, adopted in connection with the Rules of the Sofia University for the application of ZRASRB.

Opinion: there is no plagiarism in the materials for the competition.

After getting acquainted with the materials and scientific papers presented in the competition, the analysis of their significance and the scientific and applied contributions contained in them, I find it reasonable to give my **positive assessment and recommend** to the Scientific Jury to prepare a proposal to the Faculty Council of the Faculty of Mathematics and Informatics for the election of Assoc. Prof. Dr. Pavel Hristov Boytchev to the academic position of "Professor" at Sofia University "St. Kliment Ohridski" in the field of higher education 4. Natural sciences, mathematics and informatics; professional field 4.6 Informatics and computer sciences (Information technologies).

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Opinion done by:
(Ana Proykova, Prof. Doctor Habil)