OPPINION

For Assoc. Prof. Kiril Simov, PhD
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 Science", Scientific specialty "Informatics"

From *Assoc. prof. Svetla Boytcheva – IICT-BAS*

This opinion has been written presented on the basis of Order 207 / 16.08.2019 of the Director of IICT-BAS, in complience with the decision of the Scientific Council of IICT-BAS (rec. of proceedings No. 7 / 10.07.2019) I have been designated as a member of the scientific jury in the competition for academic position "Professor" in the professional field: 4.6 "Computer Science and Computer Science", Scientific specialty "Informatics", announced in State Gazette no. 41 / 21.06.2019. The opinion was prepared on the basis of the Act of the Development of the Academic Personnel in Republic of Bulgaria, Act No. 26 from 13.02.2019 for the amendment and supplementation of the Public Health and Social Policy Act, concerning the field 4. Natural sciences, mathematics and informatics, Professional Fields 4.1., 4.2. 4.3., 4.4., 4.5., 4.6., Rules on the conditions and order for acquiring academic degrees and occupying academic positions at the Bulgarian Academy of Sciences.

According to the Regulations on the Specific Conditions for Acquisition of Academic Degrees and for Applying Academic Staff in the IICT-BAS, the applicants for the academic position of "Professor" in area 4, professional field: 4.6 "Computer Science and Computer Science", must have 50 points in group of indicators "A", more than 100 points in group of indicators "B", more than 260 points in group of indicators „Г", at least 140 points in group of indicators „Д", and at least 150 points in group of indicators „Е". The applicant, Assoc. Prof. Kiril Simov has presented a record on the fulfillment of the minimum requirements for the academic position of "Professor" at IICT-BAS, with the following points: for group A - 50 points, group "B" - 120 points, group „Г" - 324 points, group „Д" - 228 points, group "E"" - 648 points, showing that it exceeds the minimum requirements for the indicators.

Short CV of the applicant

Assoc. Prof. Kiril Simov has completed secondary education at the National School of Mathematics and Applied Sciences "L. Chakalov "in 1979, after which he graduated with a Master's degree in Informatics from FMI, Sofia University" St. Kl. Ohridski "in 1986, and in 2006 he defended his dissertation on" Logical Tools for Processing Linguistic Knowledge in Reference Phrase Grammar "and was awarded the Ph.D. From 1986-1987 he worked as a programmer at the Central Institute of Software and Systems, Sofia. His scientific career at BAS began in 1987 when he became a doctoral student at the Institute of Mathematics and Mechanics at the Bulgarian Academy of Sciences. During the period 1988 - 1994 he held consecutive positions as a mathematician and research associate of the 2nd degree at the Coordination Center for Informatics and Computer Engineering, BAS. In the period 1994 - 2011 he held consecutive positions of Research Assistant II degree, Research Assistant I and Senior Research Assistant II at the Institute for Parallel Information Processing, BAS. Since 2011 until now holds a position of associate professor at the Institute of Information and Communication Technologies, BAS. He is currently the Head of the Linguistic Modeling and Knowledge Processing Department at IICT-BAS.

General description of the presented materials

From the service note presented, ref. No. 753 / August 6, 2019 signed by Human Resources, Assoc. Prof. Kiril Simiov has 12 years working experience as a Senior Associate II degree and associate professor, which covers the requirement of a minimum of at least two years of academic position of associate professor in a scientific organization or university.

Assoc. Prof. Kiril Simiov presented a diploma from the Higher Attestation Commission (№ 30740 / 31.07.2006) for the Doctor of Science, specialty 01.01.12 that fulfills the requirements for group of indicators "A".

Associate Professor Kiril Simov submitted a total of 27 publications to participate in the competition, 8 of which were listed to meet the requirements in group "Б" and 19 - group „Г". None of these publications was used for previous procedures - for obtaining a Ph.D. and for the academic position of "Associate Professor". According to the list of publications, Assoc. Prof. Kiril Simov has 180 publications, of which 27 are participating in the competition, where:

- 15 publications are indexed in SCOPUS journals or series with SJR (B01, B02, B03, G01, G02, G03, G05, G09, G10, G11, G12, G13, G16, G17, G19)
- 12 publications are in journals or series indexed in SCOPUS without SJR (B04, B05, B06, B07, B08, G04, G06, G07, G08, G14, G15, G18).

There are no individual publications submitted for the competition. I accept that in all publications the authors have equal contribution.

The total number of citations of publication of Associate Professor Kiril Simov according to Google Scholar is 1920 with h-index 21 and i10-index 59, there are 69 articles in SCOPUS, 280 citations, h-index 9 (self-citations excluded), in Web of Science there are 44 articles , 78 citations, h-index 5 (self-citations excluded). Associate Professor Kirill Simov participated in the competition with 39 citations from publications indexed in SCOPUS, incl. for publication G01 - 7 citations, G02 - 15 citations, G04 - 3 citations, B01 - 1 citations, G07 - 3 citations, G11 - 3 citations, and one publication not presented in the competition list has 7 citations.

Associate Professor Kiril Simov has a supervisor of two PhD students that successfully defended PhD. Associate Professor Kiril Simov was the lead of the Bulgarian team in 11 international scientific projects.

Scientific achievements

"Reference for the original scientific and applied scientific contributions" by Assoc. Prof. Kiril Simov is presented in a volume of 7 pages. In brief, the contributions to the submissions to the Contest may be described as follows:

- Creating language resources for Bulgarian and other languages (mainly English) - Abstract schemes, language resource formats and procedures for extracting information about the needs of the new language resources were created. As a result, a corpus with political speech, a valence dictionary in the Bulgarian language and a system for transcribing DBpedia URIs from other languages into Bulgarian were created (publications G04, G06, G16)
- Creation of language technologies for Bulgarian and other languages (mainly English) - A general representation of linguistic knowledge is defined (publication G13), a system for experiments with assembling of dependent parsers is designed (publication G15), an algorithm for constructing semantic representation of a sentence is designed (Publication

G03). Experiments have been designed to solve text analysis problems (publications G02, G05, G07, G08, G14).

- Creation of semantic resources and technologies - An ontology-text relation model has been developed. A methodology for building domain ontologies is proposed. Based on the presented model and methodology, two domain ontologies were built - one in the field of information technology for e-learning purposes and one in the field of home textiles for the industry for the production and marketing of such textiles (publications B02, B03, B04, B05, B06). Ontology-text relations for two domains have been constructed - iconography (Publication B01). and information technology (publications B02, B03, B04, B05, B06). An ontologically based dictionary for the Bulgarian language has been created (publication B07). Algorithms for expanding the knowledge graph have been designed (publications G17, G19). A combination of several freely available databases with related open data has been developed (publications G01, G11, G12).
- Applications of linguistic and semantic resources and technologies - Testing the ontology-text relationship for various eLearning tasks has been applied. Experiments with reference chains for the propagation of semantic annotations have been performed and described. Applications of language processing in question answering systems have been made (publications G09, G10). A database of related document data has been created.

Personal impressions

My direct impressions of Assoc. Prof. Kiril Simov have been accumulated as a result of my continuous cooperation with the department in which he works. Associate Professor Kirill Simov is a well-established scientist at a very high level who works with groups of prominent international scientists. He is one of the main creators of many language resources and technologies for the Bulgarian language.

Associate Professor Kiril Simov is a regular participant in the organization of numerous national and international conferences and seminars. In 2018, she was one of the main organizers of the ESSLLI (European Summer School in Logic, Language and Information) Summer School, which is the highest ranked school in the area. He is a member of many program committees in international fora, coordinator or leader of many national and international scientific projects.

Conclusion

In conclusion, I think that the materials presented from the applicant for the competition show that Assoc. Prof. Kiril Simov is an established scientist at the international level in the field. All the conditions of the the Act of the Development of the Academic Personnel in Republic of Bulgaria and the corresponding Rules of the Ministry of Education and Science, as well as specific conditions for BAS and IICT-BAS for occupation of the academic position of "Professor" at IICT-BAS have been fulfilled and I give a **positive** conclusion for the selection of Assoc. Prof. Kiril Simov Academic position "Professor" in the professional field: 4.6 "Informatics and Computer Science", specialty "Informatics".

I propose that the Scientific Jury unanimously vote on a proposal to the Scientific Council of IICT-BAS to select Assoc. Prof. Kiril Simov, PhD for the academic position of "Professor" in the professional field: 4.6 "Informatics and Computer Science", specialty "Informatics".

Sofia, 16 October 2019 г.

Member of Scientific Jury:

/Assoc. Prof. Svetla Boytcheva/