

STANDPOINT

on a competition for fulfilling the academic position "professor" in relation to professional area 4.6. Informatics and computer sciences, scientific specialty "Informatics", according to the announcement in "State newspaper", issue 49/21.06.2019

with a candidate: associate professor Kiril Ivanov Simov, Division for Linguistic Modeling and Knowledge Processing, Institute of Information and Communication Technologies, Bulgarian Academy of Sciences

Standpoint provider: prof. Dr. Petya Nacheva Osenova, Division of Bulgarian Language, Faculty of Slavic Studies, Sofia University "St. Kliment Ohridski"

General overview of the provided materials

Associate prof. PhD Kiril Ivanov Simov has completed his master studies in Informatics at the Faculty of Mathematics and Mechanics, Sofia University "St. Kl. Ohridski". In 2006 he received his educational and scientific degree Doctor with a dissertation titled "Logical means for processing linguistic knowledge in HPSG". In 2007 he was selected associate professor.

The whole scientific activity of associate prof. Simov has been related to publications in the area of language and semantic technologies. Due to the specifics of the scientific activity in these areas candidate's publications are predominantly co-authored. In them, however, the author's contribution has been clearly appointed.

Associate prof. Simov has provided the following scientific materials for the competition: 8 publications in group B, 19 publications in group G and 38 citations to 8 publications in Scopus. In group B 3 publications have an SJR factor, and 2 publications are in Springer. In group G 12 publications have an SJR factor.

It is worth noting that the publication productivity of the candidate is impressive. The same holds for the variety of topics related to the scientific and applied aspects of the language and semantic technologies. The candidate adheres to the minimal scientometry requirements for the academic position "professor". His contributions are original, thus his own.

General overview of the scientific, scientific-applied and pedagogical activities of the candidate

Associate prof. Simov has been working continuously on theoretical as well as applied aspects of tasks that require natural language processing. Such aspects are: the creation of domain ontologies; the connection between the ontologies as conceptual repositories and lexicons as containers of names and terms; the inclusion of the language and encyclopedic resources into open linked data; the creation of specialized corpora (such as the Parliamentary corpus) and dictionaries (such as the Valency dictionary); the transfer of language resources

from its original format into other formats of representation; the automated processing tools (such as taggers, parsers, named entity recognizers), etc. The candidate is a reviewer at the best forums in the area of Computational Linguistics and Semantic technologies.

Associate prof. Simov was a coordinator from Bulgarian side of a number of successful European and international projects in the area of Machine Translation (EuroMatrixPlus, QTLeap), eLeraning (LT4eL, LTfLL), Language Resources and Technologies (CLARK, BulTreeBank, FLaReNet, AsIsKnown). At the moment he is the national coordinator of the Bulgarian infrastructure CLaDA-BG that incorporates tasks on language technologies and cultural heritage and that is connected to the two corresponding European infrastructures CLARIN and DARIAH.

Associate prof. Simov has a number of PhD students that defended their dissertations successfully, among them - a PhD student from Germany. At the moment he is involved in teaching a course on language technologies in an international Machine Translation program at the New Bulgarian University.

Analytic assessment of the main scientific and/or scientific-applied contributions of the candidate

Associate prof. Simov has provided a very detailed, clear and well grounded overview of his contributions in regard to the professorship procedure. These are: the creation of language resources and technologies predominantly for Bulgarian (but also for English); creation of semantic resources and technologies (in regard to Bulgarian, English and other languages); the applications of the above mentioned resources and technologies for various tasks (eLearning, Machine Translation, Question Answering, Knowledge Retrieval, Word Sense Disambiguation) and in different areas (textile design, IT, Law studies).

The scientific and scientific-applied contributions of assoc. prof. Simov in group B are predominantly in the area of creating and using ontologies for solving various tasks. The applications of the 'ontology-to-text' model have been introduced: in the iconography area (publication 1); for the aims of eLearning (better retrieval of content – publications 2, 3, 4, 5, 6; for better annotation of content (publication 8)); and for the creation of an ontological dictionary for Bulgarian (publication 7).

The scientific and scientific-applied contributions of assoc. prof. Simov in group G fall predominantly into the topics of creating and evaluating NLP tools (publications 2, 3, 5, 7, 8, 13, 14, 15, 17, 19); language resources, such as corpora and dictionaries (publications 4 and 6); Linked Open Data and Reasoning (publications 1, 11, 12, 16 and 18); the applications of the NLP in Question Answering and Machine Translation (publications 9 and 10).

I would like to underline that from a theoretical and practical points of view the candidate shows a remarkable ability of making innovative proposals in combining diverse types of knowledge for the successful solution of important tasks. One strength of the associate prof. Simov is his skill to combine the positive features of the language and semantic technologies in creating of language resources as well as processing tools. His ideas become best practices also

internationally (for example, the model 'ontology-to-text' was used in three European projects – LT4eL, LTfLL и AsIsKnown).

Critical remarks and recommendations with regard to the provided materials

The knowledge-based approach that is at the heart of associate prof. Simov's publications, presupposes the availability of various resources and automatic tools for processing texts in some language. How to proceed in languages, areas, tasks, which lack such resources?

Motivated and clearly formulated conclusion with assessment

All the formal requirements related to this procedure have been respected: the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), of the Regulations of LDASRB, of the Regulations of the terms and conditions for acquiring scientific degrees and occupying academic positions at Bulgarian Academy of Sciences, of the Regulations of the terms and conditions for acquiring scientific degrees and occupying academic positions at the Institute of Information and Communication Technologies, Bulgarian Academy of Sciences.

Having considered all the scientific and scientific-applied contributions of the candidate, I give an entirely positive evaluation for his academic activity, and I propose to the members of the distinguished jury to select him professor in the professional area 4.6. Informatics and computer sciences, scientific specialty "Informatics".

14.10.2019

Standpoint author:

