

REVIEW

on a competition for the academic position "Professor" in professional field 4.6 "Informatics and Computer Science", specialty "Informatics"

with Candidate

Assoc. Prof. Georgi Teoharov Tuparov PhD

Reviewer: Prof. Radoslav D. Yoshinov, PhD.

In connection with the competition procedure in the New Bulgarian University for the academic position "Professor" announced in SG Issue 23/19.03.2021 by: field of higher education 4. Natural sciences, mathematics and informatics, professional field 4.6. Informatics and Computer Science (Informatics) I was appointed member of a scientific jury according to Order 3-PK-155/29.04.2021 of the Rector of the New Bulgarian University and in accordance with Article 4 of the Law on the Development of Academic Staff in the Republic of Bulgaria, Decree No26 of 19 February 2019, the Regulations on the Specific Conditions for Academic Position in the New Bulgarian University with Applicant Dr. Georgi Theoharov Tuparov.

For participation in the competition for the academic position "**Professor**" professional field 4.6 "Informatics and Computer Science", specialty "Informatics" has submitted documents the candidate Dr. Georgi Teoharov Tuparov from The New Bulgarian University .

As a member of the Scientific Jury, I have received:

1. Order of the Rector of the NBU - Z-RC-155/29.04.2021;
2. Rules of Procedure for acquiring scientific degrees and for holding academic positions in the NBU.
3. Copy of master's degree from TU-Sofia 23.09.1990;
4. Copy of the diploma of scientific and educational degree "Doctor" from 23.04.2004;
5. Copy of associate professor's degree from 05.02.2007;
6. Certificate of service;
7. Creative CV;
8. Declaration of originality and reliability;
9. List of all publications of Georgi Teoharov Tuparov ;
10. List of the publications presented for the competition by Georgi Theoharov Tuparov;
11. Author's report by Georgi Teoharov Tuparov ;
12. List of quotes of Georgi Teoharov Tuparov ;
13. Publications;

14. Additional documents

Note: all required competition documents were provided in electronic form to the <https://drive.google.com/drive/folders/13U848tYSNjrI1HcmBYvTBFOwP0VcTjMm?usp=sharing>

I have been selected as a reviewer under the procedure on the first meeting of the scientific jury.

According to the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB) of Art. 29(1)2, candidates for the academic position "Professor" professional field 4.6 "Informatics and Computer Science", specialty "Informatics" must meet the relevant minimum national requirements and additional faculty requirements;

1. have acquired a Doctor's degree, as for specialties from regulated professions, it shall be of the same specialty;

2. have held the academic position of associate professor at the University or at another higher school or scientific organisation for at least five academic years, or

3. not less than five years:

(a) have been lecturers, including honorees, or members of a research team at the University or at another higher school or scientific organisation, or

(b) have pursued artistic activity, or

(c) have been specialists in practice and have proven track record in their field;

4. have submitted published monographic work and/or equivalent publications in specialized scientific publications (including their citations) or evidence of relevant artistic achievements in the field of the arts;

5. have submitted other original research papers, publications, inventions and other scientific and applied developments or artistic achievements which are assessed as a whole; 7. there must be no statutory plagiarism in scientific papers. 31 (2) (new - 20.06.2011) The materials under para. 1, item 4 and item 5 should not repeat others with which the applicant has participated in successful procedures for acquiring the ONS "Doctor" and the National Doctor of Sciences and for holding the academic positions of "Chief Assistant" and "Associate Professor" – regardless of which scientific organization this has happened, as well as for holding an academic position "Professor" at the University. (3) If the candidates have not held the academic position "associate professor", they shall submit another published monographic work or equivalent publications in specialized scientific publications or relevant evidence of artistic achievements in the field of the arts, which shall not repeat the "Doctor" and "Doctor of Sciences" submitted for the acquisition of the NSA.

(4) (amend. – 15.10.2018) The faculties of the University have the right to determine additional requirements, which are accepted on the FS and must be deposited with the Department. In determining the additional requirements, the faculties take into account the established indicators for evaluation and financing of the scientific and artistic activity of the state higher schools, as well as the indicators from the rating system of higher schools in Bulgaria.

Pursuant to Article 61 of the Regulations for implementation of the LDAS in the Republic of Bulgaria (Respectively Art. 29 of the Law on the Development of Academic Staff in the Republic of Bulgaria and Art. 64 of the Ordinance on the Development of the Academic Staff of the New Bulgarian University), candidates for the academic position "Professor" shall be evaluated against the fulfilment of the conditions under Art. 60, para 1 and 2 and in accordance with the information from the references under Art. 60, para. 3. The fulfilment of these conditions is shown in the following:

Candidates for the academic position "Professor" must meet the following conditions:	Documents submitted
Art. 60, para. 1(1) have acquired a doctorate in education and science	Diploma for ONS Doctor No 29294 of 23.08.2004 issued by VAC
Art. 60, para. 1(2) have held the academic position of associate professor at the same or another higher school or scientific organisation for at least two academic years or not less than five years: (a) have been teachers, including honorees, or members of a research team at the same or another higher school or scientific organisation, or (b) have pursued artistic activity, or (c) have been practitioners and have proven track record in their field of	Cv presented, Certificate of the scientific title "AssociateProfessor" No. 24071 from 05.02.2007 issued by the HAC, list of courses taught at the NBU
Art. 60, para. 3 Applicants shall submit a report on the fulfilment of the minimum national requirements, the requirements of Art. 1a, para. 2, as well as a reference to the original scientific contributions to which the relevant evidence is	Author's report for publications and contributions

The table below shows a comparison by group of indicators of the performance of the candidate Dr. Georgi Teoharov Tuparov against the minimum points in the groups of indicators for the academic position "Professor", according to the specific requirements of the New Bulgarian University in Scientific Domain 4. *Natural Sciences, Mathematics and Informatics, Prof. field 4.6. Informatics and Computer Science*

Scoreboard of indicators	content	professor (Min. Points)	Submitted by the candidate in the competition
A	Indicator 1	50	50
B	Indicator 2	--	--
B	Indicators 3 or 4	100	100
Г	Sum of indicators 5 to 10	200	489

Scoreboard of indicators	content	professor (Min. Points)	Submitted by the candidate in the competition
Д	Sum of points from indicator 11	100	856
Е	Sum of indicators 12 to 20	150	498.5
Ж		70	145
З	Sum of indicators from 21 to the end (mandatory for NBU)	70	80
И		70	70

All of this proves that the candidate, Assoc. Prof. Dr. Georgi Teoharov Tuparov matches (exceeds) all the requirements of Art. 29(1)1 of the LDAS, as well as all the requirements of its rules for its application in the NBU, with the included additional requirements of the NBU for participation in the competition.

Short biographical data about the candidate.

Born in 1963. In 2004 he received his educational and scientific degree "Doctor" from TU-Sofia. In 2007 he received the position Assoc. Prof. from High Attestation Committee. Since 2016 he has held the academic position "Associate Professor" at New Bulgarian University of Sofia.

General description of the presented materials of the competition.

The candidate, Assoc. prof. Dr. Georgi Teoharov Tuparov has provided a complete list of more than 120 publications, of which 32 are indexed publications, and for the competition are presented 23 publications - 1 monograph, 1 chapter of a book, 20 indexed articles and 1 article with upcoming indexing. Of the total number of publications, 34 are monographs, chapters of books, textbooks and teaching aids for higher and secondary education.

Evidence has been submitted of 107 citations indexed in Web of Science, Scopus, ACM;

Projects – Head of the Training and Technology Center for e-learning of "Neofit Rilski" University (project "Bulgarian Virtual University") until XII.2007; He is project manager NF 05/10 2016.

The submitted materials for the competition do not repeat others used in the procedures for acquiring an educational and scientific degree "Doctor" and for holding academic positions "Chief Assistant" and "Associate Professor". I have not noticed plagiarism in the presented materials.

Scientific results and contributions.

According to its content, the scientific papers submitted for participation in the competition can be classified in the following scientific fields:

- I. Modeling and developing sustainable extensions of the functionalities of open source e-learning systems ;**
- II. Frameworks for describing and evaluating the functionalities of e-learning environments ;**
- III. Models and systems for learning.**
- IV. Mobile training – analysis, modeling and realization designed for countries in conditions of military conflict**
- V. Study of stakeholders in the e-learning ecosystem**
- VI. Development of e-learning**

The following main contributions can be outlined in the six strands considered, which we can divide into approaches, models and methods:

The contributions submitted by the candidate for the competition Assd. Ass., Ass.p. Dr. Georgi Teoharov Tuparov are systematized in six main directions:

1. Modeling and developing sustainable extensions of the functionalities of open source e-learning systems - focused on analyzing the possibilities for sustainable development of the functionalities of open source systems, as well as on developing approaches and models for creating sustainable partial extensions of these systems that adapt different specific needs of the educational process in the electronic environment. [4, 6, 10, 11, 23]. Theoretical models and approaches have been created for: 1) a model for the implementation of the "file" method [1, 2] and competence assessment modules in blog and wiki [6] as sustainable micro-expansions of the functionality of the moodle open source e-learning system ; 2) approach to using standards and specifications for e-learning to develop sustainable micro-expansions the functionality of open source e-learning systems – by developing simulations and educational games [5, 10, 11, 16, 23]; (3) approaches and models for micro-expansions by adapting an existing technological tool or resource to the e-learning system by changing semantics and/or the mode of use [23]. Implementation of the proposed models and approaches has been implemented, demonstrated their viability and effectiveness [1, 2, 3, 4, 5, 6, 16, 23].

2. Frameworks for describing and evaluating functionalities of e-learning environments have been established. Frameworks have been established to examine various aspects of the functionality of open source e-learning systems and comparative analyses of some of the most common e-learning systems concerning: 1) competence assessment [6]; (2) opportunities to integrate game elements and educational environments into open source e-learning systems [10, 11]; (3) comparative analyses of the characteristics of e-learning tools have been carried out [23].

3. Models and systems for learning. This strand covers the use of the elements and techniques of electronic games by all groups of learners by applying the game methodology for learning purposes to achieve higher motivation among learners by developing prototypes of educational games reflected in [11, 16, 21, 23]; 2), developing a model for generating test jobs using game elements [17, 18], creating technology for self-preparation and self-assessment of students [20, 23].

4. Mobile training – analysis, modeling and realization designed for countries in conditions of military conflict, the research and development were carried out on the polygon of the

Republic of Yemen, as was identified the technological challenges of mobile training in an unsustainable communication environment due to military conflict; the risks assessed and systematized from the use of different learning materials, in a heterogeneous environment of terminal equipment; The cultural features of the learning environment have been adapted by modifying the FRAME model for mobile training. A technological model for the implementation of mobile training with pilot research in the Republic of Yemen, applicable in other developing countries with a not well-developed e-learning ecosystem and problems in communication infrastructure,[13] has been developed.

5. Study of stakeholders in the e-learning ecosystem – by creating, approving and validating surveys to explore aspects of their interaction in the e-learning ecosystem: New functionalities of the technological tools of the e-learning ecosystem [3, 7] have been systematized, as well as the terminal equipment used by learners according to the specifics of the learning materials used on them [8] , 9] in the context of preferred game elements and mechanics by learners and trainers [12, 14, 16, 19].

6. Development of e-learning – Analysis and systematization of the state, problems, trends and opportunities for development of e-learning have been carried out as the educational ecosystems of Bulgaria and the Republic of Yemen have been explored [13, 22, 23]. The evolution of Web technologies and their impact on e-learning [23] has been tracked.

Audience employment, participation in scientific projects and in the organization of scientific forums

The teaching activities of Assacs. Dr. Georgi Tuparov includes the following courses:

CSCB734 Client-Server Information Systems

CSCB011 Modeling with UML

CSCB024 Programming and Internet Technology Practice

CSCB025 Practice of programming and implementation of databases

CSCB600 Project: Databases and SQL

CITB516 Self-operation: Databases

CITB556 Object-oriented programming with UML

CITB600 Databases and SQL

CITB604 Database programming

CITB624 Project: Programming databases

CITB656 Database Administration

CITB757 Design of business information systems

INFM111 PL/SQL programming

INFM160 PL/SQL Project

INFM210 Developing Web Applications with Oracle Technologies

INFM257 Web Application Project with Oracle Technologies

INFM310 Oracle Databases - Administration Basics

NETB307 Distributed Databases

NETB317 Distributed Database Applications

NETB337 Standalone Work: Distributed Databases

NETB438 Modeling with UML Databases;

The candidate is a participant in international, national and university projects in the field of information technology, distance learning, the creation of software platforms for distance learning, virtual training courses, etc. He is project manager FN 05/10 2016.

Critical notes.

It makes an impression on the very good organization and good quality of the candidate's materials. The reviewer noticed only some minor technical inconsistencies and spelling errors. All this does not diminish the large volume of research, scientific and scientific practical work of the candidate, shaping him as an established scientist.

Makes a pleasant impression of the relatively high quoteability in indexed publications. The reviewer accepts the distribution of the publications thus made on the six thematic strands presented by the applicant, although they flow into each other and no clear boundary can be drawn between them. It would be good to show the impact of these posts on more than one strand, as seen in their reading. This would show the interaction of the thematic strands presented in their dynamics and would more focus on the theme of the competition.

It is clear from the submitted documents that the applicant has already proven his teamwork opportunities (participant in international, national and university projects and collectives).

Conclusion

The requirements, conditions and criteria of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), the Rules for Implementation of the LDASRB on The Acquisition of Scientific Degrees and for the employment of academic positions at the New Bulgarian University are fulfilled and I give a strongly positive **conclusion** for the selection of Assoc. Prof. Dr. Georgi Teoharov Tuparov on competition for "Professor" in professional field 4.6. Informatics and Computer Science.

By expressing a positive opinion on the presented materials, I propose that the honorable Scientific Jury unanimously to vote on a proposal to the Academic Council of the New Bulgarian University – Sofia to choose Assoc. Prof. Dr. Georgi Teoharov Tuparov for the academic position "Professor" in professional field 4.6 "Informatics and Computer Science", specialty "Informatics"

19.07.2021

Reviewer:

Radoslav Yoshinov