

## REVIEW

for Chief Assistant Emil Hristov Doychev, PhD

in a competition for the academic position of "Associate Professor"  
by professional field 4.6 Informatics and Computer Science (Informatics - Software  
Technologies)

**Reviewer: Acad. Ivan Petkov Popchev**

By Order No. P<sub>33</sub> - 3750 Plovdiv, 25.08.2019 of the Rector of the Plovdiv University "Paisii Hilendarski" Prof. Rumen Mladenov, PhD in connection with the announced competition for the academic position "Associate Professor" in DV 57/26.06.2020 by field of higher education 4. Natural sciences, mathematics and informatics, professional field 4.6 Informatics and computer sciences (Informatics - Software technologies and report by Prof. Angel Golev - Dean of the Faculty of Faculty of Mathematics and Informatics I am nominated as an internal member of Plovdiv University of the Scientific Panel, approved by a decision of the Faculty of Mathematics and Informatics, protocol No. 136 / 08.07.2019.

I was selected as a reviewer of the announced competition at a meeting of the Scientific Panel, protocol No. 1 / 08.09.2020.

As a reviewer, I have received all 12 papers included in the application from Chief Assistant Prof. Emil Hristov Doychev, PhD to the Rector for admission to the competition K2-26/07/08/2020.

According to the Act of the Development of the Academic Personnel of the Republic of Bulgaria, The Rules for the Implementation of the Act of the Development of the Academic Personnel of the Republic of Bulgaria and Additional Requirements for the Academic Position "Associate Professor" of the Faculty of Mathematics and informatics (FMI), candidates for associate professors must meet certain conditions and requirements.

Art. 24 (1) The applicants to occupy the academic position of Reader must meet the following conditions:

1. to have been awarded the educational and scientific degree of Doctor which for the specialties of the regulated professions must be from the same field.

2. for minimum two years:

a) to have occupies the academic position of Assistant, Chief Assistant, or

b) to have been lecturers, including part-time, or members of a research and development team in the same or in another higher school or scientific organization, ...

3. to have presented a published monograph or equivalent publications in specialized scientific issued or ..., which do not reproduce those presented for awarding the educational and scientific degree of Doctor and for awarding of the scientific degree of Doctor of Science.

4. to meet the minimum national refinements under Art. 2b, Para. 2 and 3, respectively the requirements under Art. 2b, Para. 5.

5. to have no plagiarism proven as per the legally established order in the scientific works.

(2) The academic position of Reader shall be occupied on the basis of a competition and election.

(3) A competition for occupying the academic position of Reader shall be opened, if it is possible the relevant teaching and research load to be provided, according to the relevant rules of procedure of the higher school or scientific organization.

Ch. Assistant Emil Hristov Doychev, PhD **meets the requirements of Art. 24 (1).1** because he defended his dissertation on "Environment for electronic educational services.". Holds Diploma No. 1000075, issued on September 16, 2013.

Ch. Assistant Emil Hristov Doychev, PhD **meets the requirements of Art. 24 (1).2a** because with a certificate ex. No. U-226 / 22.07.2020, signed by the Rector Prof. Dr. Rumens Mladenov makes sure that Emil Hristov Doychev works at the University on a basic employment contract with order No. 502 / 31.10.2011 as an assistant in the Department of Computer Systems at the Faculty of Mathematics and Informatics and continues to work.

Ch. Assistant Emil Hristov Doychev, PhD **meets the requirements of Art. 24 (1).3** as it has presented 4 equivalent publications in specialized scientific publications, which do not repeat the ones presented for acquiring the educational and scientific degree "doctor".

There is a "List of all scientific papers" in the competition documents, as well as a "List of scientific papers for participation in the competition".

The brief analysis of the 28 **publications submitted for participation** in the competition shows the following:

- 7 publications **are in journals**;
- 18 publications are at conferences and in books (book chapters);
- 2 publications are textbooks;
- 1 publication is an abstract;
- 5 publications are **in print** (Nos. 21, 22, 23, 24 and 25);
- 3 publications are in Bulgarian (NNo. 26, 27 and 28);
- **1 publication is in journals with IF (No. 1)**
- 1 publication is independent (No. 28 - abstract).

The "**List of Noticed Citations**" includes **86 citations** from **19 publications**, some of which are from previous procedures. There are included 8 self-citations.

The reviewer considers that Ch. Assistant Emil Doychev, PhD fulfills the requirement of Art. 24 (1) .4 as it meets the minimum national requirements under Art. 26, para. 2 and 3, respectively to the requirements under Art. 2b, para. 5 as well as the additional requirements of FMI. **According to Art. 24 (1).5 there is no proven plagiarism in the scientific works according to the legally established order.**

In accordance with Art. 65 of The Rules for the Implementation of the Act of the Development of the Academic Personnel of the Republic of Bulgaria there are presented in Bulgarian and English "**Annotations of scientific papers and self-assessment of contributions**".

**The contributions** of Ch. Assistant Emil Doychev, PhD by accepting equal participation in collective work, can be briefly systematized as follows:

1. Development of architecture and implementation of a virtual educational space (VEP) in a distributed e-learning center (DeLC), which supports SCORM 2004 e-content machine and the QTI standard 2.1. e-learning process management with three types of assistants that maintain the space: personal, operational and cities. As part of the IOP, create a digital library architecture of three layers: electronic resources, operational agents and intelligent assistant (NNo. 2, 3, 4, 7, 11, 12 and 13).
2. Development a reference architecture of virtual educational space (ViRTUAL PHYSICAL SPACE (IVIPS) for IoT ecosystems provides opportunities for visualization of real "things." Three tools for virtualization of "things" are presented: AmbiNet, TNet and ENeT (NNo. 5 , 11 and 21).
3. The reference architecture of VIPS is developed: in a system for plant gene recourses of the National Gene Bank at the Institute of Plant Genetic Resources in Sadovo and for an intelligent tourist guide as a multiagent system as a hierarchy of ontology IntoNet and all landmarks are given spread CCO (Cataloging Cultural Objects) standard. (NNo. 18, 22, 24 and 25).

"**Documents for educational work**" are presented with three references:

- Auditory and extracurricular employment;
- Work with students and graduates and
- Published teaching materials.

The reports were prepared by Ch. Assistant E. Doychev, PhD and were signed by Assoc. Prof. Asya Stoyanova – Doycheva, PhD - Head of the Department of Computer Systems and Prof. Angel Golev, PhD. Briefly in these reports it is noted that Ch. Assistant Emil Doychev, PhD leads modern courses in the field of software technology, Java programming and software architectures, performs classroom work above the prescribed standards, manages and reviews over 20 successful graduates, administers and maintains the DeLC and DeLC2 portal and the Focus system for authorization of employees and students.

Accordingly, "**Research and Development Papers**" are presented with two references for:

- participation in an international project under the Stability Pact for South Eastern Europe and supported by the German Academic Exchange Service - DAAD;
- participation with a report in 10 international and national forums.

The reports were prepared by Ch. Assistant E. Doychev, PhD and are signed by Assoc. Prof. Asya Stoyanova – Doycheva, PhD - Head of the Department of Computer Systems and Prof. Angel Golev, PhD.

Included in "**Documents**" is "**Official Note**" Ex. No. NPD 467/03.08.20, prepared by R. Garbova for participation in 8 research projects.

Generalized "**scientometric image**" of Ch. Assistant Emil Hristov Doychev, PhD can be created based on information from world scientific bases:

- Scopus: 10 documents, 16 citations exclude self-citations, h-index - 2;
- Web of Science: 8 total publications, 19 sum of times cited without self-citations, h-index 2;

- Scholar. google: references 231, h-index 9, i10-index 9.

The generalized "**scientometric image**" deserves to be the subject of careful and critical self-analysis, to form a future concentration of research and to be a sufficient basis for **independent publication** in IF / SJR publications.

## **CONCLUSION**

All requirements, conditions and criteria according to Act of the Development of the Academic Personnel of the Republic of Bulgaria, The Rules for the Implementation of the Act of the Development of the Academic Personnel of the Republic of Bulgaria and the Additional requirements of FMI are fulfilled and I give a **definite positive conclusion** for the election of Ch. Assistant Emil Doychev, PhD in a competition for the academic position of "Associate Professor" in the professional field 4.6 Informatics and Computer Science (Informatics - Software Technologies).

**I propose that the Scientific Panel unanimously vote on a proposal to the Faculty of Mathematics and Informatics to elect Ch. Assistant Emil Hristov Doychev, PhD for the academic position of "Associate Professor" in the professional field 4.6 Informatics and computer science (informatics - software technologies).**

15.09.2019 г.

Reviewer: .....

Acad. Ivan Petkov Popchev