ATTITUDE

by prof. PhD Maria Petkova Hristova,

member of a scientific jury for conducting a competition for the academic position of "Associate professor" in a Professional field 4.6. Informatics and Computer Science (Informatics - Software Technologies), Area: 4. Natural Sciences, Mathematics and Informatics for the needs of Plovdiv University Paisii Hilendarski

The present Attitude was prepared in accordance with Order № P33-412 / 25.08.2020 of the Rector of the Plovdiv University Paisii Hilendarski. It complies with the specific requirements of the Faculty of Mathematics and Informatics, adopted in connection with the Regulations of the Plovdiv University and it is on the basis of the documents submitted for participation in the competition by the only candidate Chief assistant Dr. Emil Hristov Doychev from Plovdiv University Paisii Hilendarski.

1. Regarding the fulfillment of the requirements of the normative documents and the scientometric criteria

The presented set of materials is in accordance with Art. 36 (1) of the Regulations for development of the academic staff of PU Paisii Hilendarski. Upon examination of the submitted documents it is established that Chief assistant Emil Hristov Doychev satisfies the requirements of the normative documents and covers the national scientometric criteria for holding the academic position of „Associate Professor" under 4.6. Informatics and Computer Science, as well as the Additional Requirements of FMI according to Art. 65. (3) from PRAS of PU for holding the academic position „Associate professor" in PU.

2. Brief biographical data

Dr. Emil Hristov Doychev was born in 1975. He has a master's degree in mathematics with a professional qualification of mathematician and computer scientist at the FMI of the Plovdiv University Paisii Hilendarski. Since 2013 he has held a PhD in the professional field 4.6. Informatics and computer sciences with a defended dissertation on "Environment for electronic educational services". From 2001 to 2016 he worked as a team leader in ISI Intellect Ltd., Sofia and in Demasis Ltd., Plovdiv. Since 2016 he has been working as an IT project manager at Proxiad Bulgaria EAD, Plovdiv. Since 2011 he has been a full-time assistant at the Department of Computer Systems at the Faculty of Science at the Plovdiv University, and since 2014 he has been a Chief assistant. He has a total pedagogical experience of 8 years, 8 months and 20 days.

3. General characteristics of the candidate's activity

Chief Assistant Dr. Emil Doychev has attached a list of all his publications - a total of 46. In this competition the candidate participates with 28 papers, of which 7 are in journals, 18 are publications at scientific conferences and books (or book chapters), one textbook and a manual, and an abstract of a dissertation for the award of educational and scientific degree "Doctor".

From the author's Information for observance of the minimum national requirements and the additional requirements of FMI at PU according to Art. 65. (3) from the "Law on the Development of Academic Staff in the Republic of Bulgaria" and the Regulations on the terms and conditions for obtaining scientific degrees at PU - and from the submitted documents it shall be seen that the candidate has:

• In group B: "*Habilitation work - scientific publications in publications that are referenced and indexed in world-famous databases of scientific information*" - 4 publications (of which 2 in Scopus, 1 in Web of Science, 1 with SJR). Two of the collective publications are chapters of books, which according to the specific requirements of FMI are equal to one article in a magazine with an impact factor or two articles in a magazine.

• In group D: *"Scientific publications in publications that are referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus), outside the habilitation work"* - 10 publications (of which 4 in Scopus, 2 in WoS, 4 with SJR, one chapter from a book in a team).

• Published textbook and guide on "Software Technology" in co-authorship.

• Five participations in national scientific or educational projects.

• One participation in an international scientific or educational project.

All submitted publications are in English and are related to the topic of the competition.

4. Basic scientific, scientific-applied contributions and educational-methodical contributions

On the basis of these works, I accept the claims of the candidate Chief assistant Dr. Emil Doychev in his author's self-assessment for scientifically applied and applied contributions as justified in the following areas:

• *Creation of architecture and realization of virtual educational space (VEP).* The SCORM 2004 machine developed by the author (and built into the Distributed e-learning center - DeLC) is the only Bulgarian implementation of the specification for support of two fundamental e-learning standards - SCORM 2004 and QTI 2.1. In many publications of Dr. Doychev he presents the ideas for Virtual Educational Space (for the development of architecture and software that can be used for effective e-learning and distance learning, the main characteristics of GPP - contextual orientation, scenario orientation and controlled infrastructure. structure, model of context-dependent agent architecture, use of intelligent agents for managing e-learning processes or for communication with users, etc. The development of a digital library as part of the VEP architecture is presented as well.

• *Creating a reference architecture of virtual physical space (VIRTUAL PHYSICAL SPACE - VIPS).* The development of VEP in FMI is divided into two separate projects with the participation of the applicant. The first project focuses on creating a reference architecture for Internet of Things (IoT) ecosystems called Virtual Physical Space (VIPS). The second project will continue the implementation of VOP as an adaptation of the VIPS architecture for a specific area of application, namely e-learning.

• Application of the reference architecture of VIPS in various fields - e-learning, incl. e-testing systems (developed eTesting system), IoT eLearining ecosystem, BLISS system for lifelong learning, intelligent agriculture (GenBankSystem project) and tourism (developed intelligent tourist guide, implemented as a multi-agent system).

The pedagogical activity of Dr. Emil Doychev is expressed in the development and conduct of lectures and exercises in 10 courses in master's and bachelor's programs. He has been the scientific supervisor of over 20 successfully defended FMI graduates. The scientific results of his dissertation "Environment for electronic educational services" are successfully applied in the training of bachelors and masters gradiuates.

From 2001 to 2015, Chief assistant Dr. Emil Doychev participated in the international project "Software Engineering: Computer Science Education and Research Cooperation",

implemented under the Stability Pact in Southeast Europe and supported by the German Academic Exchange Service - DAAD. One of the main directions of the project, on which Dr. Doychev actively worked, was the creation of a general course in the discipline "Software Technology" - JCSE (Joint Course in Software Engineering) and exchange of experience in teaching it. He is a member of the team that developed the environments for e-learning services DeLC and DeLC2. Participates in the development of 8 research projects in current areas of software technology and e-learning under the Research Fund of the Ministry of Education and Science. Dr. Doychev develops and maintains the system for authorization of employees and students at PU - Focus, which is used to provide various electronic services at the university.

In the presented materials there is evidence of a total of 86 citations, of which 9 in SCOPUS and WoS.

Based on the general characteristics of the scientific-applied, applied and educational-methodical contributions of Dr. Emil Doychev, it can be concluded that they are the personal work of the candidate or for the most part are the result of teamwork with his participation and have academic weight for the development of the professional field of the current competition.

5. Critical remarks and recommendations

It is worth noting that in the 27 works submitted for participation in the competition (except the abstract) there is not a single publication of which the candidate is the only author, but since the specific requirements of the Faculty of Mathematics and Informatics do not explicitly require a number of individual works, this fact can be ignored . However, in my future work I would recommend Dr. Doychev to expand the independent publication of his scientific papers.

This recommendation does not violate the overall positive impression of the results in the scientific production of the candidate in the competition.

CONCLUSION

Based on the analysis of the overall successful teaching and research activities and the scientific production of the only candidate in the competition, Ch. Assistant Professor Dr. Emil Hristov Doychev, which fully comply with "Law on the Development of Academic Staff in the Republic of Bulgaria" (Art. 29), the Regulations for the development of the academic staff of Paisii Hilendarski University of Plovdiv and the specific requirements of the Faculty of Mathematics and Informatics, adopted in connection with the Regulations of PU for application of "Law on the Development of Academic Staff in the Republic of Bulgaria" I strongly recommend to the respected scientific jury to choose Ch. assistant Dr. Emil Hristov Doychev for the academic position of "Associate Professor" at the Plovdiv University Paisii Hilendarski in the professional field 4.6 Informatics and Computer Science (Informatics - Software Technologies), field of higher education 4. Natural Sciences, Mathematics and Informatics.

October 18th, 2020   JURY MEMBER:
Sofia   Prof. Dr. Maria Hristova