STATEMENT

by Assoc. Prof. Galina Ivanova Ivanova, PhD

University of Ruse “Angel Kanchev”

member of Scientific Jury in a competition for the academic position „Associate professor“ of the Faculty of Technical Sciences of University of Shumen in the field of higher education: 5. Technical Sciences professional field 5.3 Communication and Computer Technique (Automated Information Processing Systems and Management)

1. General presentation of the procedure

In the competition for "Associate Professor", announced in the State Gazette no. 87/09.10.2020, one candidate Principal Assistant Professor Valentin Tonev Atanasov, PhD submitted his documents. At the first meeting the Scientific Jury admitted to the evaluation procedure the documents of the candidate, in compliance with all procedural rules for the application of the Law of the Development of the Academic Staff in the Republic of Bulgaria and the accompanying Rules of University of Shumen.

The statement was written on the basis of order N РД-16-184/30.11.2020 of the Rector of University of Shumen.

2. Professional Biography of the Candidate

Principal Assistant Professor Valentin Tonev Atanasov was born on 02 November 1964. He graduated with a master's degree National Military School “Vasil Levski” in 1986. In the period 2014 - 2017 he studied in educational and scientific degree "Doctor" and defended a dissertation on "Establishment and research of educational games as an element of motivating strategy in WEB-based learning in the school education system ". In 2017 he started as a principal assistant at University of Shumen.

The above data are taken from the attached CV in the submitted documents.

3. Description and Analysis of the Candidate’s Scientific Achievements

Principal Assistant Professor Valentin Tonev Atanasov, PhD include for the competitions one monograph, one interactive manual, 11 reports, 3 articles, and one publication in a collective monographic work, apart from those on the dissertation. Five publications are in a foreign language. Two publications are referenced and indexed in world-famous databases of scientific information.

The following citations are presented:

- 3 citations in scientific journals, referenced and indexed in world-famous databases;
- 11 citations in monographs and collective volumes with scientific review;
- 4 citations in unreferred editions with scientific review.

The proposed scientific publications in the competition for associate professor are not included in the procedure for obtaining the scientific degree "PhD". In the provided reference, for fulfillment of the minimum national requirements to the scientific and teaching activity of Principal Assistant Professor Valentin Atanasov for holding the academic position of "Associate Professor", a scientific production that meets the criteria for the respective groups of indicators is presented:

- Group Indicator A: Dissertation for awarding educational and scientific degree "PhD"– 50 points;
- Group Indicator B: Habilitation work - monograph – 100 points;
- Group Indicator Г: with a minimum required 200, the candidate submits 217,94 points;
- Group Indicator Д: with a minimum required 50, the candidate submits 71 points;

The areas in which the candidate conducts his scientific and applied research are related to current topics and problems. The presented scientific materials exceed the requirements for the academic position of "Associate Professor".

4. Scientific Contributions

In the reference provided for the original scientific contributions of Principal Assistant Professor Valentin Atanasov the main scientific and applied contributions are classified in the following main areas: synthesis of software training systems; synthesis of algorithms; conceptualization and synthesis of intelligent educational environments; conceptualization of the engineering educational process; study of interfaces in an intelligent complex for computing; fuzzy sets; formalization of processes.

Scientific and Applied Contributions:

- A working framework for measuring and evaluating educational interactivity has been synthesized;
- A methodology has been proposed and criteria for measuring and evaluating educational interactivity have been defined;
- A taxonomy of interactivity assessment has been synthesized;
- Space and specifications of the educational interactivity are defined;
- A classification of interactive objects for measuring and evaluating interactivity has been made;

- An algorithm for determining the complex index of educational interactivity has been synthesized;

- A didactic model of digitally based learning process and a model of educational interaction have been synthesized;

- Conceptualization and classification of educational interactivity has been made;

- A working framework for measuring interactivity in digital educational resources has been synthesized;

- A model of user interaction has been formalized on the basis of published author's theoretical productions;

- A classification of interactive objects for measuring and evaluating interactivity in Web-based training applications has been made;

- A program mechanism for evaluation of interactivity in WEB based training applications has been proposed;

- Namely space is defined, that is applicable in determining a complex index of educational interactivity in Web-based learning applications;

- An interface and an abstract class of user program interaction have been synthesized;

- A functional model of a game-based learning application and a functional model of a smart educational cluster have been synthesized;

- A model of the web-based training platform for training games has been synthesized;

- A model of a CISC based processor has been synthesized and a model of a simulation process has been developed;

- An algorithm for determining a complex index of educational interactivity in Web-based learning applications and an algorithm for a game-based process for testing knowledge have been synthesized;

- User interactions in a training application are conceptualized and an extended educational paradigm is proposed, applicable in a digitally based learning process;

- A conceptual model of an intelligent educational environment is proposed;

- A model of a smart educational cluster is conceptualized;

- A "flow state" in a computer training game is conceptualized;

- A conceptual model has been synthesized as a stage of the physical realization of an intelligent high-tech complex "smart home" - with wirelessly controlled controllers, through a human-computer interface which includes a set of voice commands;

- A physically full-featured model of a high-tech complex "smart home" has been created and implemented;

- A method for fuzzy modeling of a problem related to the evaluation of the academic staff is proposed in order to adequately interpret the results of their evaluation;

- A formalized apparatus for studying the probability of an event in the domain of "cybersecurity" is presented and a paradigm of cybersecurity is synthesized.

I accept the contribution synthesis made in this way. There are original scientific and applied contributions in the work of the candidate. The contributions listed above are made with the personal contribution of Principal Assistant Professor Valentin Atanasov. Proof of this are the numerous publications with significant participation on his part. I consider the existence of joint publications as a positive moment and they are proof that the candidate has good skills for teamwork.

5. Critical Notes

I don't have any critical notes on the presented materials. I would recommend focusing his efforts on publishing the results of his research in publications indexed in Scopus or Web of Science.

6. Conclusions

The presented documents and materials from Principal Assistant Professor Valentin Atanasov meet all the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for implementation of LDASRB and the Regulations of University of Shumen.

After analyzing the scientific work and its significance, I find it reasonable to give my positive assessment. I suggest to the members of the Scientific Jury to support the choice of Principal Assistant Professor Dr. Valentin Tonov Atanasov for the academic position of "Associate Professor" of Faculty of Technical Sciences of University of Shumen in the field of higher education: 5. Technical Sciences, professional field 5.3 Communication and Computer Technique (Automated Information Processing Systems and Management).

04.01.2021 Author's Signature:

Ruse / Assoc. Prof. Galina Ivanova, PhD/