

## THE RESPONSE

of the foreign member of “The dissertation council”  
of “The Saint-Petersburg state university” (“SPbSU”)  
on the dissertation (in the form of scientific monography) on the rights of manuscript  
of Vetrov Anatoly Nikolaevich  
on the theme “The environment of automated training  
with the properties of adaptation based on the cognitive models”,  
submitted on the competition of the scientific degree of the candidate of technical sciences  
on the spec. 05.13.01 – “The system analysis, control and information processing”  
(technical sciences)

### 1. The relevance of the theme of the dissertation and the appropriateness of scientific research

The informatization of the diverse establishments of the system of science and education of the country is the significantly complex scientific interdisciplinary problem, that initiates the consideration of a wide range of scientific areas and aspects (tasks), and also the creation of innovative approaches, methods, technologies and algorithms at the realization of the means of automation in the basis of the information-educational environments, which provide the potential possibility of providing of the system analysis and the increase of the efficiency of functioning of the training systems (at distance).

### 2. The object, subject and purpose of research in the dissertation of the applicant of the scientific degree

The object of research is the information-educational environment of the automated (remote) training system of the educational establishment.

The subject of research is the automated training system with the properties of adaptation based on the parametrical cognitive models block.

The purpose of research is the increase of the efficiency of functioning of the information-educational environment of the automated training system (at distance) due to the realization of the individually-oriented formation of knowledge of the trainee with the using of the adaptive generation of sequence of the educational influences based on the innovative parametrical cognitive models block.

### 3. The theoretical and practical scientific results of the applicant of the scientific degree

3.1. The environment of automated (remote) training with the properties of adaptation based on the innovative parametrical cognitive models block.

3.2. The cognitive modeling technology for the (microscopic) system analysis of the information-educational environments of the scientific and educational establishments and the increase of the efficiency of functioning of the various components of the automated (remote) training system with the properties of adaptation based on the innovative parametrical cognitive models block.

3.3. The parametrical cognitive models block as the information basis of the (microscopic) system analysis of the information-educational environment.

3.4. The structure of the complex of programs as the modern means of automation of the (microscopic) system analysis of the information-educational environment and the increase of the efficiency of functioning of the various components of the automated (remote) training system with the properties of adaptation based on the innovative parametrical cognitive models block.

3.5. The generalized results of the dynamics of change of the resultativity of functioning of the information-educational environment of the educational (scientific) establishment and the increase of the efficiency of functioning of the various components of the automated (remote) training system with the properties of adaptation based on the innovative parametrical cognitive models block.

3.6. The statistical justification of a posteriori data of the automated research.

**4. The validity, reliability and novelty of scientific provisions, conclusions and recommendations, formulated by the applicant of the scientific degree in the content of the dissertation**

It is confirmed by the system approach to the description of the object of research, the application of the fundamental and applied positions of the theory of information, physiology of sensory systems, cognitive psychology, applied linguistics, the adequacy of the developed parametrical cognitive models block to the layered-step model of the perception, processing and understanding of information, the using of the valid, reliable and discriminative methods of research (tests), the precise regulation of conducting of the automated research in the form of testing, the results of statistical processing of a posteriori data of the diagnostics, obtained by means of the developed high-technological complex of software, the approbation of the scientific provisions of the dissertation at the seminars and conferences of different level, the introducing of the scientific results of the dissertation into the learning process of the educational establishments ("The Saint-Petersburg state electrotechnical university "LETI" named after V.I. Ulyanov (Lenin)" and "The international banking institute" (RF, Saint-Petersburg city)).

**5. The theoretical and practical significance of the scientific results of the dissertation**

Vetrov A.N. has 01 average (secondary) special and 03 higher professional educations, is engaged in the interdisciplinary actual scientific researches and developments:

- the brief details about him were published in the encyclopedia "Famous scientists" of "The Russian academy of natural science" ("RANS") according to the decision of "The Presidium of "RANS"";
- his author's academic scientific direction "Cognitive informatics, cognitive modeling technology for the system and financial analysis" was recognized by the scientific community and published in the official "The register of new scientific directions" of "RANS" (the international association) according to the decision of "The Presidium of "RANS" (the protocol №699 from the 08<sup>th</sup> of June 2018 y.).

**6. The conclusion about the compliance of the dissertation to the criteria, established by "The order of awarding in "SPbSU" of the scientific degree of the candidate of sciences, the scientific degree of the doctor of sciences", approved by The order from the 01.09.2016 y. №6821/1 "About the order of awarding of the scientific degrees in "SPbSU" "**

The dissertation (in the form of scientific monography) on the rights of manuscript of the applicant of scientific degree Vetrov Anatoly Nikolaevich on the theme "The environment of automated training with the properties of adaptation based on the cognitive models" conforms to the main requirements, established by The order from the 01.09.2016 y. №6821/1 "About the order of awarding of the scientific degrees in "SPbSU" ", and the applicant Vetrov A.N. deserves the awarding of the scientific degree of the candidate of technical sciences on the spec. 05.13.01 – "The system analysis, control and information processing" (technical sciences). The point 11 of the specified Order by the dissertator is not broken.

The foreign member of "The dissertation council" of "SPbSU",  
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