THE EXTRACT

from the protocol №85.08/4-04-6 of meeting of the chair "Information systems" ("IS")
of the faculty "Applied mathematics – control processes" ("AM – CP")
of "The Saint-Petersburg state university" ("SPbSU")
from the "30th" of October 2018 y.

WERE PRESENT: the head of the chair "IS", d.ph.-m.s., prof. Olemskoy I.V., the scientific secretary of the chair "IS", c.ph.-m.s., associate prof. Eremin A.S., d.ph.-m.s., prof. Kvitko A.N. (the scientific supervisor of the applicant of scientific degree), d.ph.-m.s., prof. Matrosov A.V., d.ph.-m.s., prof. Peregudin S.I., c.ph.-m.s., associate prof. Ivanov A.P., c.ph.-m.s., senior teacher Maksina A.M.

LISTENED: the scientific report (with multimedia-presentation and information materials) in the national Russian language and the international foreign English language of the applicant of scientific degree, the author of the unique cognitive modeling technology Vetrov A.N. on his dissertation on the rights of manuscript on the theme "The environment of automated training with the properties of adaptation based on the cognitive models", submitted to defence in "The dissertation council" of "SPbSU" (D.212.232.50) on the competition of scientific degree of the candidate of technical sciences on the spec. 05.13.01 – "The system analysis, control and information processing" (the adaptive systems of automatic control with the determined entrance influences and the reference cognitive models of the subject of training and the means of training, the reconstructed models of the cognitive processes).
    The scientific supervisor – d.ph.-m.s., prof. Kvitko Alexander Nikolaevich.
    In the scientific report the applicant of scientific degree Vetrov Anatoly Nikolaevich:
- has formulated the relevant scientific aspects of informatization of the educational environment and has allocated the priority approaches to realization of the automated individually-oriented formation of knowledge with use of the adaptive means of training, taking into account a number of features of the trainee;
- has proved the need of development of the complex scientific approach to the solution of the scientific problem of the system analysis of the information-educational environment, creation, introduction and increase in the efficiency of functioning of the automated (remote) training system with the properties of adaptation based on the innovative parametrical cognitive models block, which allows to provide the adaptive generation of training influences and to realize the individually-oriented formation of knowledge of trainees;
- has stated the main scientific results of the specified dissertation, which include:
  - the modified structure of the information-educational environment;
  - the principles (algorithms) 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;
  - the cognitive modeling technology for the realization of the system analysis of the information-educational environment of educational establishment;
  - the structures of the cognitive models of the subject of training and the means of training;
  - the complex of software for the automation of the tasks of research;
- has reported about the practical use of the scientific results of the specified dissertation for providing the system analysis of the information-educational environment of the (adaptive) automated training system (at distance) and increase in the efficiency of the formation of knowledge of the contingent of trainees.

    At discussion of the scientific report there were asked questions to Vetrov A.N., which he gave the full and reasoned answers from the scientific point of view.

AT THE DISCUSSION SPOKE: the head of the chair "IS", d.ph.-m.s., prof. Olemskoy I.V., the scientific secretary of the chair "IS", c.ph.-m.s., associate prof. Eremin A.S., d.ph.-m.s., prof. Kvitko A.N. (the scientific supervisor of the applicant of scientific degree), d.ph.-m.s., prof. Matrosov A.V., d.ph.-m.s., prof. Peregudin S.I., c.ph.-m.s., associate prof. Ivanov A.P., c.ph.-m.s., senior teacher Maksina A.M.

They gave the positive estimation of the specified dissertation of Vetrov A.N.

The speeches with the negative estimation of the specified dissertation did not follow.

On the basis of the scientific report of Vetrov A.N. on the specified dissertation and the taken place discussion the following conclusion of the chair "IS" is approved.

THE CONCLUSION
of the chair "Information systems"
of the faculty "Applied mathematics – control processes"
of "The Saint-Petersburg state university"
on the dissertation on the rights of manuscript on the theme
"The environment of automated training with the properties of adaptation
based on the cognitive models"

1. <u>The relevance of the theme</u> of the specified dissertation is caused by the essential need of creation, distribution and use of new approaches, methods and technologies for:

1.1. The system analysis, synthesis and increase in the efficiency of functioning of the automated information-educational environments of a new generation.

1.2. The development of the adaptive (intellectual) means of training (at distance), considering the different individual features of the diverse contingent of trainees (physiological, psychological, linguistic and other relevant parameters).

2. <u>The personal participation of the author (the applicant of scientific degree) in the obtaining of the scientific results</u> is in that, that directly Vetrov A.N. self-contained (independently):

2.1. There were developed, presented and proved the various modifications in the organization of the (automated) information-educational environment and the technological process of the formation of knowledge of the contingent of trainees, and also the principles (algorithms) of functioning of the various components of the created automated (remote) training system at the realization of the contour of adaptation based on the parametrical cognitive models block.

2.2. There was offered the innovative cognitive modeling technology, including its iterative cycle, the technique of its use for the system analysis, the algorithm of formation of the structure of the parametrical cognitive model on the basis of two innovative ways (models) of representation of data (the oriented graph combining the theory of sets and the multilevel structural scheme (block diagram)), the techniques of research of the parameters of the cognitive models of the subject of training and the means of training and the algorithm of processing of a posteriori data of testing of the contingent of trainees.

2.3. There were developed the cognitive models of the subject of training and the means of training for the use as a part of the innovative parametrical cognitive models block.

2.4. There was developed the complex of programs (algorithms and programs) including:

- the adaptive means of training (the adaptive electronic textbook) – allows to provide the automation of individually-oriented generation of the sequence of information fragments (training influences) on the basis of the innovative parametrical cognitive models block;
- the basic diagnostic module – realizes the automated estimation of the level of residual knowledge of the trainee on the studied disciplines (subjects of studying) with the use of the rough scale (the quantity of the correct answers the questions) and the exact scale (the weight coefficients for each variant of answer the question);
- the applied diagnostic module – provides the automation of the process of research of the parameters of the parametrical cognitive model of the subject of training.

3. The scientific novelty of the results, received by the author, consists in the following:

3.1. There was offered the structure of the information-educational environment of a new generation and the modified principles (algorithms) 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, differing in the possibility of accounting of the individual features of the subjects of training at the generation of training influences of different kind in the various way by the means of training by means of the adaptive representation of the sequence of information fragments processor.

3.2. There was developed the innovative cognitive modeling technology, including a set of various techniques and algorithms of different function, which provide the system analysis of the information-educational environment and increase in the efficiency of process of the formation of knowledge of the contingent of trainees in the automated training system (at distance) with the elements of adaptation basis on the innovative parametrical cognitive models block.

3.3. There were developed the cognitive models of the subject of training and the means of training, acting as the (re)designed repertoires of parameters in width and depth, which are echeloned on a set of portraits with the certain scientific justification and allow to characterize respectively the individual features of the trainee (perception, processing and understanding of information fragments of different kind) and the potential technical capabilities of the adaptive means of training (at the generation of the diverse training influences by the various ways and methods).

4. <u>The theoretical validity and scientific reliability of scientific results, provisions and conclusions</u> in the specified dissertation of Vetrov A.N. is confirmed by:

4.1. The application of the system approach to the description of the object of research, the correct use of provisions and methods of the fundamental and applied sciences:

- the fundamental sciences (theoretical methods) – (cognitive) informatics (computer science), the theory of systems (of artificial intelligence), the system analysis and modeling, the theory of control, the structuring and representation of knowledge, engineering psychology and pedagogics;
- the applied sciences (practical methods) – the private physiology of analyzers (sensory systems), cognitive psychology and applied linguistics.

4.2. The approbation of scientific results and provisions of the specified dissertation:

- at the local and international seminars and conferences of various level;
- during the leadership of diploma design of ten diploma-students;

4.3. The publication of scientific articles in the scientific journals, recommended by "HAC RF".

4.4. The introduction of results in training process (there are relevant acts):

- at the chair "Automatics and control processes" ("ACP") of the faculty "Computer technologies and informatics (computer science)" ("CTI") of "The Saint-Petersburg state electrotechnical university "LETI"" directly when carrying out the planned training classes on the disciplines "Intellectual technologies and representation of knowledge" (the practical classes in two groups of full-time department, 2003-2006 y.) and "Informatics" (lectures in six groups of full-time department and two groups of evening department and laboratory works in three groups of full-time department and two groups of evening department, 2004-2010 y.) [on the spec. "Control and informatics (computer science) in technical systems" and "Information systems in the technics and technologies"];
- at the faculty "Professional retraining and improvement of professional skills" of "The international banking institute" (RF, Saint-Petersburg city) when holding the planned attestation (certification) actions on the disciplines "Financial management", "Managerial accounting", "Banking", "Insurance business", "Taxes and taxation" and "Audit of bank activity" of listeners of the 17th enrollment and the 18th enrollment on the programs of professional retraining and higher professional education (2003-2004 y.) [on the spec. "Finance and credit" and "Anti-crisis management"].

4.5. The intermediate and final results of mathematical processing of a posteriori data with use of a set of various statistical methods and the package of applied programs for the statistical data processing "SPSS 12.0" and later.

5. The practical importance of the specified dissertation and the received results:

5.1. There was developed the iterative cycle of the cognitive modeling technology, the technique of use of the cognitive modeling technology for the system analysis, the algorithm of formation of the structure of the parametrical cognitive model on the basis of two offered innovative ways (models) of representation of data, which allow to provide the system analysis of the information-educational environment on the basis of the formed structures of the parametrical cognitive models.

5.2. There were formed the structures of the cognitive models of the subject of training and the means of training, each of which acts as the information basis for the carrying out the system analysis and contains a number of the portraits having the certain deep scientific justification: physiological portrait (psychophysiology of analyzers), psychological portrait (cognitive psychology) and linguistic portrait (applied and mathematical linguistics).

5.3. There was developed the technique of research of the parameters of the cognitive model and the algorithm of processing of a posteriori data of testing of the contingent of trainees, allowing to organize the research and to decide the series of experiments, to carry out the automated diagnostics and the analysis of a posteriori data.

5.4. There was developed the complex of software (algorithms and programs), which allows to automate significantly the tasks of research: the adaptive electronic textbook, which functions on the basis of the adaptive representation of the sequence of information fragments processor, the basic diagnostic module and the applied diagnostic module.

6. The recommended sphere of application of the main and derivative fundamental and applied scientific results of the specified dissertation of Vetrov A.N. includes the following:

6.1. Are the essential interest to the scientific-research organizations and educational establishments in the system of science and education of the (not) developed countries.

6.2. Are recommended at the development and the improvement of scientific approaches to the solution of the put scientific problem and the informatization of the system of science and education.

6.3. Introduction and research of the theoretical and practical scientific results received by Vetrov A.N. expediently continuously to continue and to expand, as only the positive tendency of their practical use is observed.

7. The completeness of statement of materials of the dissertation in the works, published by the author and approbation:

- on the theme of the specified dissertation Vetrov A.N. independently developed and published 43 on 2007 y. (80 on 2012 y.) different scientific works of various kind: 01 textbook and 03 methodical instructions to the lab. works on the discipline "Informatics"; 02 separate sections in 01 collective scientific monography of "The international Higher education academy of sciences" ("IHEAS") (with formal coauthors-teachers); 08 (16) learning manuals and scientific monographies (without coauthors); 01 (02) report(s) on individual initiative SRW; 05 (12) scientific articles in the scientific journals, recommended by "HAC of RF", from them 00 (05) scientific articles are deposited in ""VINITI" of "RAS""; 22 (43) scientific reports in the materials of 11 (24) international scientific conferences, and also there were received 04 copyright certificates about deposition and registration of the works – the objects of intellectual property in "RAS" (RF, Moscow city) [in 2005-2007 y. (2012 y.) there was executed the norm for the candidate (doctor) of technical sciences (it was required 02 (10) scientific articles in scientific journals from the list of "HAC of RF")];

- Vetrov A.N. is ""the author of the unique technology" of cognitive modeling" for the system analysis of the information-educational environments, the financial analysis of the highly-integrated (credit) organizations and the complex analysis of the difficult objects, processes and phenomena (nuclear polymers) at the micro-level ("AUT CMT SFA") (according to the items 1542, 1543, 1544, 1545, 1546, 1547 and 1551 of "Civil codex of RF");

- the scientific results of Vetrov A.N. reflect the inter-disciplinary approach in science, therefore the short information about him is added to the encyclopedia "Famous scientists" of "The Russian academy of natural science" ("RANS") [according to the decision "The Presidium of "RANS""];

- the scientific works of Vetrov A.N. allowed to prove the genesis (emergence and development), to allocate the author's new academic scientific direction "Cognitive informatics (computer science), cognitive modelling technology for the system and financial analysis" and directly to add it to "The register of the new scientific directions" of "RANS" [according to the decision "The Presidium of "RANS"", protocol №699 from the 08th of June 2018 y.].

7.1. <u>The textbooks.</u>

7.1.1. Vetrov A.N. Informatics (computer science): the textbook for students and pupils (technical, natural, humanitarian, social and medical sciences) / A.N. Vetrov; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2005, M.: ""VINITI" of "RAS"", 2008, M.: "The Russian author's society" ("RAS"), 2008. – 331 p.: pic. – Bibliogr. 26 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2008, "RAS", 2008.

The contribution of the applicant ("AUT CMT SFA") consists in the development of methodical support for the purpose of holding of the lecture classes on the discipline "Informatics" for the students of the first-year of "SPbSETU "LETI"" (and a wide range of readers).

7.2. <u>The learning manuals and the scientific monographies (with coauthors).</u>

7.2.1. Vetrov A.N. The factors of success in the educational activity of modern HEI: The tendencies of development of the information environment of remote education: the collective scientific monography (natural, technical, humanitarian, social and medical sciences) / A.N. Vetrov, N.A. Vetrov; edited by the memb.-corr. of "IHEAS" I.N. Zakharov. – SPb.: The publishing house of "IBI", 2004. – P.54-65 (13 p. from 148 p.).

The contribution of the applicant ("AUT CMT SFA") consists in the research of the tendencies of development of the information environment of remote education.

7.2.2. Vetrov A.N. The factors of success in the educational activity of modern HEI: The cognitive model for the adaptive systems of remote training: the collective scientific monography (natural, technical, humanitarian, social and medical sciences) / A.N. Vetrov, E.E. Kotova; edited by the memb.-corr. of "IHEAS" I.N. Zakharov. – SPb.: The publishing house of "IBI", 2004. – P.65-78 (14 p. from 148 p.).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the structure of the cognitive model for the adaptive systems of remote training.

7.2.3. Vetrov A.N., Zinovyeva N.N. The program toolkit of qualification estimation of the professional participants of the securities market: the scientific monography (technical and economic sciences) (spec. 05.13.01, 08.00.10) / A.N. Vetrov, N.N. Zinovyeva; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2004. – 160 p.; [the first diploma-student Zinovyeva Natalya Nikolaevna, RF, Baikonur city – the theme of diploma project "The development of the program toolkit of qualification estimation of the professional participants of the securities market", the mark of "The state attestation commission" "excellent" ("SPbSETU "LETI"", 2004 y., gr. 8832, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.2.4. Vetrov A.N., Blinkov R.Y. The diagnostic module of the open educational portal for the tasks of the information environment of the automated remote training: the scientific monography (technical and physical-mathematical sciences) (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov, R.Y. Blinkov; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2005. – 160 p.; [the second diploma-student Blinkov Roman Yuryevich, RF, Saint-Petersburg city – the theme of diploma project "The development of the diagnostic module of the open educational portal for the tasks of the information environment of the automated remote training", the mark of "The state attestation commission" "excellent" ("SPbSETU "LETI"", 2005 y., gr. 9832, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.2.5. Vetrov A.N., Tasoyeva E.B. The program toolkit of diagnostics of the level of convergent intellectual abilities of the cognitive model of the examinee for the tasks of the information environment of the adaptive training": the scientific monography (technical and physical-mathematical sciences) (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov, E.B. Tasoyeva; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2005. – 160 p.; [the third diploma-student Tasoyeva Elena Borisovna, RF, Leningrad area, Sosnovy bor town – the theme of diploma project "The development of the program toolkit of diagnostics of the level of convergent intellectual abilities of the cognitive model of the examinee for the tasks of the information environment of the adaptive training", the mark of "The state attestation commission" "excellent" ("SPbSETU "LETI"", 2005 y., gr. 9832, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.2.6. Vetrov A.N., Fedoseyeva N.A. The program toolkit of diagnostics of the level of divergent intellectual abilities of the cognitive model of the examinee for the tasks of the information environment of the adaptive training: the scientific monography (technical and physical-mathematical sciences) (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov, N.A. Fedoseyeva; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2005. – 160 p.; [the fourth diploma-student Fedoseyeva Natalya Aleksandrovna, RF, Saint-Petersburg city – the theme of diploma project "The development of the program toolkit of diagnostics of the level of divergent intellectual abilities of the cognitive model of the examinee for the tasks of the information environment of the adaptive training", the mark of "The state attestation commission" "good" ("SPbSETU "LETI"", 2005 y., gr. 9832, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.2.7. Vetrov A.N. The operating system "MS Windows 98/Me/2000": the methodical instructions to the laboratory works (technical, natural, humanitarian, social and medical sciences) / O.Y. Belash, A.N. Vetrov, E.E. Kotova; edited by the prof. N.N. Kuzmin. – SPb.: The publishing house of "SPbSETU "LETI"", 2005. – 72 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development of methodical support with the purpose of carrying out the laboratory practical work on the discipline "Informatics" for the students of the first-year of "SPbSETU "LETI"" (and a wide range of readers).

7.2.8. Vetrov A.N. The package of applied programs "MS Office 97/2000": the textual editor "Word": the methodical instructions to the laboratory works (technical, natural, humanitarian, social and medical sciences) / O.Y. Belash, A.N. Vetrov, E.E. Kotova; edited by the prof. N.N. Kuzmin. – SPb.: The publishing house of "SPbSETU "LETI"", 2005. – 64 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development of methodical support with the purpose of carrying out the laboratory practical work on the discipline "Informatics" for the students of the first-year of "SPbSETU "LETI"" (and a wide range of readers).

7.2.9. Vetrov A.N. The package of applied programs "MS Office 97/2000": the system of spreadsheets "Excel": the methodical instructions to the laboratory works (technical, natural, humanitarian, social and medical sciences) / O.Y. Belash, A.N. Vetrov, E.E. Kotova; edited by the prof. N.N. Kuzmin. – SPb.: The publishing house of "SPbSETU "LETI"", 2005. – 76 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development of methodical support with the purpose of carrying out the laboratory practical work on the discipline "Informatics" for the students of the first-year of "SPbSETU "LETI"" (and a wide range of readers).

7.2.10. Vetrov A.N., Prikhodko D.Y. The program realization of the procedure of diagnostics of the achromatic and chromatic field of vision of the cognitive model of the subject of training for the analysis of the automated educational environment: the scientific monography (technical and physical-mathematical sciences) (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov, D.Y. Prikhodko; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2008. – 160 p.; [the fifth diploma-student Prikhodko Dmitry Yuryevich, RF, Saint-Petersburg city – the theme of diploma project "The program realization of the procedure of diagnostics of the achromatic and chromatic field of vision of the cognitive model of the subject of training for the analysis of the automated educational environment", the mark of "The state attestation commission" "good" ("SPbSETU "LETI"", 2008 y., gr. 2321, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.2.11. Vetrov A.N., Shaposhnikov A.V. The program realization of the procedure of diagnostics of the parameters of color perception of the cognitive model of the trainee for the analysis of the information environment of automated training: the scientific monography (technical and physical-mathematical sciences) (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov, A.V. Shaposhnikov; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2009. – 160 p.; [the sixth diploma-student Shaposhnikov Alexey Vladimirovich, RF, Saint-Petersburg city – the theme of diploma project "The program realization of the procedure of diagnostics of the parameters of color perception of the cognitive model of the trainee for the analysis of the information environment of automated training", the mark of "The state attestation commission" "excellent" ("SPbSETU "LETI"", 2009 y., gr. 3321, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.2.12. Vetrov A.N., Anufriyeva O.K. The program realization of the procedure of diagnostics of the cognitive styles of the cognitive model of the trainee for the analysis of the information environment of automated training: the scientific monography (technical and physical-mathematical sciences) (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov, O.K. Anufriyeva; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2009. – 160 p.; [the seventh diploma-student Anufriyeva Olga Konstantinovna, RF, Saint-Petersburg city – the theme of diploma project "The program realization of the procedure of diagnostics of the cognitive styles of the cognitive model of the trainee for the analysis of the information environment of automated training", the mark of "The state attestation commission" "good" ("SPbSETU "LETI"", 2009 y., gr. 3831, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.2.13. Vetrov A.N., Karyukhina A.P. The program realization of the procedure of diagnostics of the acuity of vision of the cognitive model of the trainee for the analysis of the information environment of automated training: the scientific monography (technical and physical-mathematical sciences) (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov, A.P. Karyukhina; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2009. – 160 p.; [the eighth diploma-student Karyukhina Anna Petrovna, RF, Saint-Petersburg city – the theme of diploma project "The program realization of the procedure of diagnostics of the acuity of vision of the cognitive model of the trainee for the analysis of the information environment of automated training", the mark of "The state attestation commission" "good" ("SPbSETU "LETI"", 2009 y., gr. 3831, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.2.14. Vetrov A.N., Andreyeva K.A. The program realization of the procedure of the electronic dean's office for the support of the system analysis of the information-educational environment based on the cognitive modeling technology: the scientific monography (technical and physical-mathematical sciences) (spec. 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov, K.A. Andreyeva; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2010. – 160 p.; [the ninth diploma-student Andreyeva Katerina Aleksandrovna, RF, Saint-Petersburg city – the theme of diploma project "The program realization of the procedure of the electronic dean's office for the support of the system analysis of the information-educational environment based on the cognitive modeling technology", the mark of "The state attestation commission" "good" ("SPbSETU "LETI"", 2010 y., gr. 4832, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.2.15. Vetrov A.N., Bocharova L.N. The program realization of the procedure of the electronic laboratory practical work of the automated training system with the properties of adaptation based on the parametrical cognitive models block: the scientific monography (technical and physical-mathematical sciences) (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov, L.N. Bocharova; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2010. – 160 p.; [the tenth diploma-student Bocharova Lyubov Nikolaevna, RF, Saint-Petersburg city – the theme of diploma project "The program realization of the procedure of the electronic laboratory practical work of the automated training system with the properties of adaptation based on the parametrical cognitive models block", the mark of "The state attestation commission" "excellent" ("SPbSETU "LETI"", 2010 y., gr. 4832, the scientific supervisor, "AUT CMT SFA" Vetrov A.N.)].

7.3. <u>The learning manuals and the scientific monographies (without coauthors).</u>

7.3.1. Vetrov A.N. The control system of eight-position step-by-step electric drive: the attestation work on the rights of scientific monography (technical and physical-mathematical sciences – "Elements and devices of automatic systems") (spec. 01.02.01, 05.13.01) / A.N. Vetrov; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2002. – 160 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the obligatory attestation work on the rights of scientific monography and the simultaneous passing of the planned obligatory examination on the discipline "Elements and devices of automatic systems" (the mark "excellent") according to the appendix to the diploma about the higher education the series DVS №1230632 from the 11th of February 2003 y.

7.3.2. Vetrov A.N. The working demonstrational prototype of the expert system of training: the attestation work on the rights of scientific monography (technical and physical-mathematical sciences – "Cognitive computer science") (spec. 05.13.01, 01.01.09) / A.N. Vetrov; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2003. – 160 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the obligatory attestation work on the rights of scientific monography and the simultaneous defence of the planned diploma project "The development of the working demonstrational prototype of the expert system of training" (the mark of "The state attestation commission" "excellent") according to the appendix to the diploma about the higher education the series DVS №1230632 from the 11th of February 2003 y.

7.3.3. Vetrov A.N. The carbon life in the postindustrial society and the cognitive modeling technology: the attestation work on the rights of scientific monography (humanitarian sciences – "Foreign (English) language") (spec 10.02.04, 10.02.19, 10.02.20, 10.02.21, 10.02.22) / A.N. Vetrov; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2003. – 64 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the obligatory attestation work on the rights of scientific monography and the simultaneous passing of the planned entrance and candidate examination on the discipline "Foreign (English) language" (the mark of "The state attestation commission" "excellent") according to the appr. protocol of meeting of the examination commission №3 from the 04th of April 2003 y.

7.3.4. Vetrov A.N. The dialectic-materialistic approach in philosophy of science and technics: the scientific report for the scientific seminar on the rights of scientific monography (philosophical sciences – "Philosophy of science") (spec. 05.13.01, 08.00.10, 09.00.03, 09.00.08, 09.00.11, 09.00.13) / A.N. Vetrov; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2003. – 64 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the obligatory scientific report for the scientific seminar on the rights of scientific monography with the purpose of passing of the planned obligatory candidate examination on the discipline "Philosophy of science" (the mark "excellent").

7.3.5. Vetrov A.N. The international standards of financial report documentation: the features of transformation (of the financial report documentation on RAS in to the financial report documentation on IAS based on the cognitive modeling technology): the attestation work on the rights of scientific monography (economic sciences) (spec. 08.00.10, 08.00.12, 08.00.13, 08.00.14) / A.N. Vetrov; "IBI". – SPb.: "IBI", 2004. – 352 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the obligatory attestation work on the rights of scientific monography and the simultaneous defence of the planned diploma project (the mark of "The state attestation commission" "excellent") according to the appendix to the diploma about the prof. retraining the series PP №548008 from the 24th of June 2004 y.

7.3.6. Vetrov A.N. The features of the system, financial and complex analysis based on the cognitive modeling technology: the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography (physical-mathematical, technical, economic and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2003. – 13 p. (+ 5 slides); [(not) published materials to the international scientific-practical conference "Actual problems of economics and new technologies of teaching (Smirnov readings)" of "IHEAS" on the 12th-13th of March 2003 y. ("IBI"), (not) published materials to the international scientific-methodical conference "Modern education: contents, technologies, quality" of "IHEAS" on the 23rd of April 2003 y. ("SPbSETU "LETI"")].

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography.

7.3.7. Vetrov A.N. The features of the system, financial and complex analysis based on the cognitive modeling technology: the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography (physical-mathematical, technical, economic and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "IBI", 2004. – 13 p. (+ 23 slides); [(not) published materials to the international scientific-practical conference "Actual problems of economics and new technologies of teaching (Smirnov readings)" of "IHEAS" on the 11th-13th of March 2004 y. ("IBI"), (not) published materials to the international scientific-methodical conference "Quality management in modern High school (HEI)" of "IHEAS" on the 17th-18th of June 2004 y. ("IBI")].

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography.

7.3.8. Vetrov A.N. The features of the system, financial and complex analysis based on the cognitive modeling technology: the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography (physical-mathematical, technical, economic and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "IBI", 2005. – 9 p. (+ 12 slides); [(not) published materials to the international scientific-practical conference "Actual problems of economics and new technologies of teaching (Smirnov readings)" of "IHEAS" on the 15th-16th of March 2005 y. ("IBI"), (not) published materials to the international scientific-methodical conference "Quality management in modern High school (HEI)" of "IHEAS" on the 21st-22nd of June 2005 y. ("IBI")].

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography.

7.3.9. Vetrov A.N. The features of the system, financial and complex analysis based on the cognitive modeling technology: the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography (physical-mathematical, technical, economic and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2006. – 16 p. (+ 74 slides); [(not) published materials to The All-Russian scientific conference "Control and information technologies" of "RAS" on the 10th-12th October 2006 y. ("CSRI "Electric-device"", "SPbSETU "LETI""), (not) published materials to the international conference "Problems of cybernetics and informatics (computer science)" of "ANAS" on the 24th-26th of October 2006 y. ("ANAS")].

The contribution of the applicant ("AUT CMT SFA") consists in development of structure and content of the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography.

7.3.10. Vetrov A.N. The features of evolution of the theory of information and information technologies on a threshold of the XXIst century: the attestation work on the rights of scientific monography (philosophical sciences – "Philosophy of science") (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) *"To the 60th anniversary of "The Victoty in GPW 1941-1945 y.""* / A.N. Vetrov; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2004, M.: ""VINITI" of "RAS"", 2004, M.: "The Russian author's society", 2007. – 141 p.: pic. – Bibliogr. 16 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2004, "RAS", 2007.

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the obligatory attestation work on the rights of scientific monography and the passing of the planned obligatory candidate examination on the discipline "Philosophy of science" (the mark of "The state attestation commission" "excellent") according to the appr. protocol of meeting of the examination commission №85 from the 03rd of June 2004 y.

7.3.11. Vetrov A.N. The environment of automated training with the properties of adaptation based on the cognitive models: the attestation work on the rights of scientific monography (technical, physical-mathematical and medical sciences) (spec. 05.13.01, 05.13.10, 19.00.02 (19.00.03)) / A.N. Vetrov; "SPbSETU "LETI"". – SPb.: "SPbSETU "LETI"", 2005, M.: ""VINITI" of "RAS"", 2005, M.: "RAS", 2007. – 256 p.: pic. – Bibliogr. 68 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2005, "RAS", 2007.

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the obligatory attestation work on the rights of scientific monography and the passing of the planned obligatory candidate examination on spec. 05.13.01 – "The system analysis, control and information processing" (the mark of "The state attestation commission" "excellent") according to the appr. primary protocol of meeting of the examination commission from the 01st of November 2005 y. (it was lost in "DDP" of "SPbSETU "LETI"") in fact of the planned reception at him the candidate examination on spec. 05.13.01 – "The system analysis, control and information processing", the appr. secondary protocol of meeting of the examination commission №238 from the 05th of December 2006 y. in fact of the unplanned reception at him the candidate examination on spec. 05.13.01 – "The system analysis, control and information processing".

7.3.12. Vetrov A.N. The automation means of the system analysis of the information-educational environment based on the cognitive modeling technology: the collection of scientific articles on the rights of scientific monography (physical-mathematical and technical sciences) (spec. 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2005, 2006, 2007. – 71 p.: pic. – Bibliogr. 57 nom. – Rus. – Dep. in ""VINITI" of "RAS"", "RAS".

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific articles on the rights of scientific monography of 2005-2007 y.

7.3.13. Vetrov A.N. The features of the system, financial and complex analysis based on the cognitive modeling technology: the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography (physical-mathematical, technical, economic and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2007, 2008. – 22 p. (+ 79 slides); [(not) published materials to the international scientific-practical conference "Actual problems of economics and new technologies of teaching (Smirnov readings)" of "IHEAS" on the 13th-14th of March 2007 y. and on the 13th-14th of March 2008 y. ("IBI"), (not) published materials to the international scientific-methodical conference "Modern education: contents, technologies, quality" of "IHEAS" on the 19th of April 2007 y. ("SPbSETU "LETI""), (not) published materials to the international scientific-methodical conference "Quality management in modern High school (HEI)" of "IHEAS" on the 21st-22nd of June 2007 y. ("IBI")].

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography.

7.3.14. Vetrov A.N. The automation means of the system analysis of the information-educational environment based on the cognitive modeling technology: the collection of scientific articles on the rights of scientific monography (physical-mathematical and technical sciences) (spec. 05.13.01, 19.00.02 (19.00.03)) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2008. – 59 p.: pic. – Bibliogr. 33 nom. – Rus. – Dep. in ""VINITI" of "RAS"", "RAS".

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific articles on the rights of scientific monography of 2008 y.

7.3.15. Vetrov A.N. The features of the system, financial and complex analysis based on the cognitive modeling technology: the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography (physical-mathematical, technical, economic and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2009. – 17 p. (+ 163 slides); [(not) published materials to the international scientific-practical conference "Actual problems of economics and new technologies of teaching (Smirnov readings)" of "IHEAS" on the 11th-13th of March 2009 y. ("IBI"), (not) published materials to the international scientific-methodical conference "Modern education: contents, technologies, quality" of "IHEAS" on the 22nd of April 2009 y. ("SPbSETU "LETI""), (not) published materials to the international scientific-methodical conference "Quality management in modern High school (HEI)" of "IHEAS" on the 18th-19th of June 2009 y. ("IBI")].

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography.

7.3.16. Vetrov A.N. The automation means of the system and financial analysis of the information-educational environments and (credit) organizations based on the cognitive modeling technology: the collection of scientific articles on the rights of scientific monography (physical-mathematical, technical and economic sciences) (spec. 05.13.01, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2009. – 101 p.: pic. – Bibliogr. 56 nom. – Rus. – Dep. in ""VINITI" of "RAS"", "RAS".

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific articles on the rights of scientific monography of 2009 y.

7.3.17. Vetrov A.N. The features of the system, financial and complex analysis based on the cognitive modeling technology: the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography (physical-mathematical, technical, economic and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2010. – 16 p. (+ 82 slides); [(not) published materials to the international scientific-practical conference "Actual problems of economics and new technologies of teaching (Smirnov readings)" of "IHEAS" on the 16th-17th of March 2010 y. ("IBI"), (not) published materials to the international scientific-methodical conference "Modern education: contents, technologies, quality" of "IHEAS" on the 21st-22nd of April 2010 y. ("SPbSETU "LETI""), (not) published materials to the international scientific-methodical conference "Quality management in modern High school (HEI)" of "IHEAS" on the 16th-19th of June 2010 y. ("IBI")].

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific reports and multimedia-presentations (slides) on the rights scientific monography.

7.3.18. Vetrov A.N. The features of the system, financial and complex analysis based on the cognitive modeling technology: the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography (physical-mathematical, technical, economic and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2011. – 21 p. (+ 185 slides); [(not) published materials to the international scientific-practical conference "Actual problems of economics and new technologies of teaching (Smirnov readings)" of "IHEAS" on the 01st of April 2011 y. ("IBI"), (not) published materials to the international scientific-methodical conference "Modern education: contents, technologies, quality" of "IHEAS" on the 20th of April 2011 y. ("SPbSETU "LETI""), (not) published materials to the international scientific-methodical conference "Quality management in modern High school (HEI)" of "IHEAS" on the 16th 19th of June 2011 y. ("IBI")].

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography.

7.3.19. Vetrov A.N. The features of the system, financial and complex analysis based on the cognitive modeling technology: the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography (physical-mathematical, technical, economic and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10) / A.N. Vetrov; "SIO "ACNS"". – SPb.: "SIO "ACNS"", "SPbSETU "LETI"", "IBI", 2012. – 26 p. (+ 107 slides); [(not) published materials to the international scientific-practical conference "Actual problems of economics and new technologies of teaching (Smirnov readings)" of "IHEAS" on the 16th of March 2012 y. ("IBI"), (not) published materials to the international scientific-methodical conference "Modern education: contents, technologies, quality" of "IHEAS" on the 18th of April 2012 y. ("SPbSETU "LETI""), (not) published materials to the international scientific-methodical conference "Quality management in modern High school (HEI)" of "IHEAS" on the 30th-31st of October 2012 y. ("IBI")].

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the collection of scientific reports and multimedia-presentations (slides) on the rights of scientific monography.

7.3.20. Vetrov A.N. History and philosophy of technics and informatics (computer science): the attestation work on the rights of scientific monography (philosophical sciences – "History and philosophy of science") (spec. 07.00.10, 09.00.08) *To the 70th anniversary of "UNESCO""* / A.N. Vetrov; "IBI". – SPb.: "IBI", 2015, M.: ""VINITI" of "RAS"", 2015. – 36 p.: pic. – Bibliogr. 40 nom. – Rus. – Dep. in ""VINITI" of "RAS"".

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the obligatory attestation work on the rights of scientific monography and the passing of the unplanned obligatory candidate examination on the discipline "History and philosophy of science" (the mark of "The state attestation commission" "excellent") according to the appr. protocol of meeting of the examination commission from the 21st of August 2015 y. in fact of the unplanned reception at him the cand. examination on the disc. "History and philosophy of science" (according to the certificate about the period of training from the 20th August 2015 y. to the 27th August 2015 y. in fact of transfer as an extern for the intermediate attestation in "ANO HPE "IBI"").

7.4. <u>The reports on the scientific-research work.</u>

7.4.1. Vetrov A.N. The report on the individual initiative SRW "The research of the environment of automated training with the properties of adaptation based on the cognitive models" for 2003-2005 y., carried out during writing of my dissertations: the report on SRW (physical-mathematical, technical, humanitarian, social and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03)), SPb.: "SPbSETU "LETI"", "IBI", "SPbSUEF "FINEC"", M.: ""VNTIC" of "RAS"", 2005 (2006). – 451 p.

The contribution of the applicant ("AUT CMT SFA") consists in the statement and carrying out (from 2003 y. to 2005 y.) the series of automated experiments in "SPbSETU "LETI"" and "IBI" by means of the developed adaptive means of training, the main and applied diagnostic modules with registration on the created personal cards for the registration of a posteriori data, the primary and secondary processing of a posteriori data in the programs "Excel" and "SPSS", the development of structure and content of the report on the ind. init. SRW on the main spec. 05.13.01.

7.4.2. Vetrov A.N. Appendix to the report on the individual initiative SRW "The research of the environment of automated training with the properties of adaptation based on the cognitive models" for 2003-2005 y., carried out during writing of my dissertations: the appendix to the report on SRW (physical-mathematical, technical, humanitarian, social and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03)), SPb.: "SPbSETU "LETI"", "IBI", "SPbSUEF "FINEC"", M.: ""VNTIC" of "RAS"", 2005 (2006). – 654 p.

The contribution of the applicant ("AUT CMT SFA") consists in the statement and carrying out (from 2003 y. to 2005 y.) the series of automated experiments in "SPbSETU "LETI"" and "IBI" by means of the developed adaptive means of training, the main and applied diagnostic modules with registration on the created personal cards for the registration of a posteriori data, the primary and secondary processing of a posteriori data in the programs "Excel" and "SPSS", the development of structure and content of the append. to the report on the ind. init. SRW on the main spec. 05.13.01.

7.4.3. Vetrov A.N. The report on the individual initiative SRW "The research of the information environment of automated training with the properties of adaptation based on the cognitive models and the financial analysis of the organization by means of the cognitive modeling technology" for 2006-2008 y., carried out during writing of my dissertations: the report on SRW (physical-mathematical, technical, economic, humanitarian, social and medical sciences) (spec. 01.02.01, 05.13.01, 05.13.10, 19.00.02 (19.00.03), 08.00.10), SPb.: "SPbSETU "LETI"", "IBI", "SPbSUEF "FINEC"", M.: ""VNTIC" of "RAS"", 2008 (2009). – 716 p.

The contribution of the applicant ("AUT CMT SFA") consists in the statement and carrying out (from 2006 y. to 2008 y.) the series of automated experiments in "SPbSETU "LETI"" and "IBI" by means of the developed adaptive means of training, the main and applied diagnostic modules with registration on the created personal cards for the registration of a posteriori data, the primary and secondary processing of a posteriori data in the programs "Excel" and "SPSS", the development of structure and content of the report on the ind. init. SRW on the main spec. 05.13.01 and 08.00.10.

7.5. <u>The scientific articles (in the scientific journals, recommended by "HAC of RF").</u>

7.5.1. Vetrov A.N. The approach to the synthesis of the information-educational environment of the adaptive remote training with the usage of the cognitive modeling methods and technologies / A.N. Vetrov // "Proceedings of "IHEAS"" ("The Ukrainian branch"), №1, 2005. – SPb.: "SPbSETU "LETI"", 2005, Kiev: "IHEAS", 2005. – 21 p. (P.102-121).

The contribution of the applicant ("AUT CMT SFA") consists in the development of approach to the synthesis of the information-educational environment of the adaptive remote training with the use of methods and technologies of the cognitive modeling.

7.5.2. Vetrov A.N. The approach to the synthesis of the information-educational environment of the adaptive (remote) training with the usage of the cognitive modeling methods and technologies / A.N. Vetrov, E.E. Kotova, N.N. Kuzmin // "Proceedings of "The Volgograd state technical university"", №8, 2006. – SPb.: "SPbSETU "LETI"", 2005, Volgograd: "VSTU", 2006. – 9 p. (P.194-196).

The contribution of the applicant ("AUT CMT SFA") consists in the development of approach to the synthesis of the information-educational environment of adaptive (remote) training with the use of methods and technologies of the cognitive modeling.

7.5.3. Vetrov A.N. The information environment of the automated training based on the cognitive models / A.N. Vetrov, E.E. Kotova, N.N. Kuzmin // "Proceedings of "IHEAS"" ("The Moscow branch"), №3 (37), 2006. – SPb.: "SPbSETU "LETI"", 2006, M.: "IHEAS", 2006. – 15 p. (P.100-112).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the information environment of the automated training based on the cognitive models.

7.5.4. Vetrov A.N. The adaptive information-educational environment of the automated (remote) training based on the parametrical cognitive models / A.N. Vetrov, E.E. Kotova, N.N. Kuzmin // "Proceedings of "SPbSETU "LETI""", №1, 2006. – SPb.: "SPbSETU "LETI"", 2006. – 14 p. (P.101-111).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the adaptive information-educational environment of the automated (remote) training based on the innovative parametrical cognitive models.

7.5.5. Vetrov A.N. The realization of the adaptive training in the automated educational environment based on the cognitive models / A.N. Vetrov // "Proceedings of "SPbSETU "LETI""", №1, 2007. – SPb.: "SPbSETU "LETI"", 2007. – 8 p. (P.10-16).

The contribution of the applicant ("AUT CMT SFA") consists in the realization of the adaptive training in the automated educational environment based on the cognitive models [there was prepared by the results of statement and carrying out (from 2003 y. to 2005 y.) of the series of the automated experiments in "SPbSETU "LETI"" and "IBI" by means of the developed adaptive means of training, the main and applied diagnostic modules with registration on the created personal cards for the registration of a posteriori data].

7.5.6. Vetrov A.N. The cognitive modeling technology in the automated educational environment / A.N. Vetrov // "Proceedings of "RUPF (RUDN)"", №4, 2008. – SPb.: "SPbSETU "LETI"", 2006, M.: "RUPF (RUDN)", 2008 (Bibliogr. 13 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2008). – 18 p. (P.26-42).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the cognitive modeling technology in the automated educational environment (at distance).

7.5.7. Vetrov A.N. The features of realization of the information-educational environments of the automated training / A.N. Vetrov // "Automation and modern technologies", №8, 2008. – SPb.: "SPbSETU "LETI"", 2007, M.: "Mechanical engineering", 2008 (Bibliogr. 8 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2008). – 15 p. (P.16-25).

The contribution of the applicant ("AUT CMT SFA") consists in the research of the features of realization of the information-educational environments of the automated training (there was developed the standard topology of organization of the territorially distributed information-educational environment of the educational and scientific establishment, which is put in the basis of the innovative topology of organization and realization of the unique innovative "The scientific-educational consortium "System and financial analysis based on the cognitive modeling technology"".

7.5.8. Vetrov A.N. The electronic textbook based on the adaptive representation of information fragments processor in the automated educational environment / A.N. Vetrov // "The bulletin of computer and information technologies", №11, 2008. – SPb.: "SPbSETU "LETI"", 2007, M.: "Mechanical engineering", 2008 (Bibliogr. 12 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2008). – 22 p. (P.38-50).

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and implementation of the adaptive electronic textbook based on his adaptive representation of information fragments processor in the automated educational environment (at distance).

7.5.9. Vetrov A.N. The program complex for the tasks of research of the adaptive environment of the automated training based on the cognitive models / A.N. Vetrov // "Automation and modern technologies", №10, 2010. – SPb.: "SPbSETU "LETI"", 2009, M.: "Mechanical engineering", 2010 (Bibliogr. 12 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2009). – 19 p. (P.20-33).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the program complex for the tasks of research of the adaptive environment of the automated training based on the innovative block of parametrical cognitive models.

7.5.10. Vetrov A.N. The applied diagnostic module for the diagnostics of parameters of the cognitive model of the subject of training in the adaptive environment / A.N. Vetrov // "Herald of "The Dagestan state technical university"", №1 (44), 2017. – SPb.: "SPbSETU "LETI"", 2009, Makhachkala: "DSTU", 2017 (Bibliogr. 12 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2009). – 25 p. (P.70-85).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the applied diagnostic module for the diagnostics of parameters of the cognitive model of the subject of training in the adaptive environment.

7.5.11. Vetrov A.N. The basic diagnostic module in the automated training system with the properties of adaptation (based on the parametrical cognitive model block) / A.N. Vetrov // "Automation of control processes", №1, 2016. – SPb.: "SPbSETU "LETI"", 2009, Ulyanovsk: "FSUE SPA "Mars"", 2016 (Bibliogr. 12 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2010). – 18 p. (P.47-58).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the main diagnostic module for the diagnostics of the level of residual knowledge in the automated training system with the properties of adaptation based on the innovative parametrical cognitive models block.

7.5.12. Vetrov A.N. The parametrical cognitive models block for the analysis of the efficiency of information exchange in the adaptive environment of the automated training / A.N. Vetrov // "Herald of "The Dagestan state technical university"", №3 (44), 2017. – SPb.: "SPbSETU "LETI"", 2009, Makhachkala: "DSTU", 2017 (Bibliorg. 10 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2010). – 23 p. (P.112-125).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the innovative parametrical cognitive models block for the system analysis of the efficiency of information exchange in the adaptive environment of the automated training.

7.5.13. Vetrov A.N. The cognitive modeling technology for the financial analysis of the financial-economy activity of the organization / A.N. Vetrov. – SPb.: "SPbSETU "LETI"", 2009 (Bibliorg. 10 nom. – Rus. – Dep. in ""VINITI" of "RAS"", 2010). – 23 p. (It was given to preliminary consideration to the scientific journal "Works of "ISA" of "RAS"" on the 18th of July 2009 y.).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the innovative cognitive modeling technology for the financial analysis of the financial-economy activity of the organization.

7.5.14. Vetrov A.N. The cognitive approach as the basis of the analysis of the difficult objects of research (The appearance of cognitive approach, the bases of the system and financial analysis of the difficult objects of research) / A.N. Vetrov // "Herald of "The Dagestan state technical university"", №1 (45), 2018. – SPb.: "SIO "ACNS"", 2015, Makhachkala: "DSTU", 2018 (Bibliorg. 30 nom. – Rus. – Dep. in ""VINITI" of "RAS""). – 17 p. (P.113-128).

The contribution of the applicant ("AUT CMT SFA") consists in the development of the innovative cognitive approach as the basis of the analysis of the difficult objects of research (in the justification of emergence of the innovative cognitive approach and bases of the system and financial analysis of the difficult objects of research).

7.6. <u>The scientific reports at the congresses, conferences, symposiums, seminars, exhibitions and olympiads.</u>

7.6.1. Vetrov A.N. The influence of the development of information and communication technologies on society and education / A.N. Vetrov, N.A. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Modern technologies of training": the materials of "The IInd international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 12th-13th of March 2003 y. – SPb.: "IBI", 2003. – Vol.2. – P.13-15.

The contribution of the applicant ("AUT CMT SFA") consists in the research of the degree of influence of the new information and communication technologies on society and education.

7.6.2. Vetrov A.N. The conception of development of the intellectual training systems based on the fast prototyping technology / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The IInd international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 12th-13th of March 2003 y. – SPb.: "IBI", 2003. – Vol.2. – P.15-17.

The contribution of the applicant ("AUT CMT SFA") consists in the wording of the conception and the definition of the task of development of the intellectual training systems on the basis of the existing fast prototyping technology.

7.6.3. Vetrov A.N. The working demonstration prototype of the expert system of training as the pedagogical program-diagnosing means / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The IInd international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 12th-13th of March 2003 y. – SPb.: "IBI", 2003. – Vol.2. – P.18-20.

The contribution of the applicant ("AUT CMT SFA") consists in the definition of task, the development of decision and the development of the working demonstration prototype of the expert system of training.

7.6.4. Vetrov A.N. The application of the artificial intelligence systems in the problem training: on the example of the program-diagnosing module of the expert training system / A.N. Vetrov, E.E. Kotova // "Modern technologies of training", the section "Technologies of training": the materials of "The IXth international scientific-methodical conference ("IHEAS"), RF, Saint-Petersburg city, the 23rd of April 2003 y. – SPb.: "SPbSETU "LETI"", 2003. – Vol.2. – P.16-18.

The contribution of the applicant ("AUT CMT SFA") consists in the carrying out of research of the use of the artificial intelligence systems in the problem training, the definition of task and the development of the program-diagnosing module of the expert training system for the information-educational environment.

7.6.5. Vetrov A.N. The cognitive model of the user as the means of communicative interaction with the remote training system / A.N. Vetrov, E.E. Kotova // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The IIIrd international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 11th-13th of March 2004 y. – SPb.: "IBI", 2004. – P.33-35.

The contribution of the applicant ("AUT CMT SFA") consists in the definition of task and the development of the structure of the cognitive model for the automated training systems at distance.

7.6.6. Vetrov A.N. The bases of the technology of construction of the parametrical cognitive models for the tasks of the remote training environment / A.N. Vetrov, E.E. Kotova // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The IIIrd international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 11th-13th of March 2004 y. – SPb.: "IBI", 2004. – P.35-36.

The contribution of the applicant ("AUT CMT SFA") consists in the development and the description of purpose of the structure of the cognitive model and the cognitive modeling technology.

7.6.7. Vetrov A.N. The features of support of the information safety at the level of applications in the environment of WWW with the use of PHP / A.N. Vetrov, N.A. Vetrov, E.E. Kotova // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Mathematical methods and information technologies in economics": the materials of "The IIIrd international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 11th-13th of March 2004 y. – SPb.: "IBI", 2004. – P.265-269.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the support of information security at the level of applications in the environment of WWW.

7.6.8. Vetrov A.N. The features of professional activity of the personality in the conditions of globalization of the information environment / A.N. Vetrov, E.E. Kotova // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Humanitarian and social knowledge and their role in economics and education": the materials of "The IIIrd international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 11th-13th of March 2004 y. – SPb.: "IBI", 2004. – P.306-308.

The contribution of the applicant ("AUT CMT SFA") consists in the research of a number of the features of professional activity of the personality in the conditions of globalization of the information environment.

7.6.9. Vetrov A.N. The application of the expert training systems for the automation of control of the level of knowledge on the subject areas / A.N. Vetrov, N.A. Vetrov // "Quality management in modern High school (HEI)", the section "Quality management in High school (HEI)": the materials of "The IInd international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 17th-18th of June 2004 y. – SPb.: "IBI", 2004. – Vol.2. – P.19-23.

The contribution of the applicant ("AUT CMT SFA") consists in the creation and research of the results of application (use) of the expert training systems for the automation of estimation of the level of residual knowledge of the contingent of trainees.

7.6.10. Vetrov A.N. The features of application of the expert training systems for the automated estimation of qualification of the professional participants of the securities market / A.N. Vetrov, E.E. Kotova // "Quality management in modern High school (HEI)", the section "Quality management in High school (HEI)": the materials of "The IInd international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 17th-18th of June 2004 y. – SPb.: "IBI", 2004. – Vol.2. – P.23-26.

The contribution of the applicant ("AUT CMT SFA") consists in the creation and research of the features of application (use) of the expert training systems for the estimation of qualification of the professional participants of the securities market, and also the organization by him the practical approbation of scientific result at the preparation of the diploma-student Zinovyeva N.N., "SPbSETU "LETI"", gr. 8832 (2004 y.), the mark of "The state attestation commission" "excellent", the theme "The development of the program toolkit of qualification estimation of the professional participants of the securities market" (spec. 05.13.01, 08.00.10).

7.6.11. Vetrov A.N. The features of the information environment structure of the adaptive remote training systems / A.N. Vetrov, N.A. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Innovative technologies of education": the materials of "The IVth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 15th-16th of March 2005 y. – SPb.: "IBI", 2005. – Vol.1. – P.45-46.

The contribution of the applicant ("AUT CMT SFA") consists in the creation of the structure of the information-educational environment of the adaptive system of automated training based on the parametrical cognitive models.

7.6.12. Vetrov A.N. The cognitive model structure for the support of the information environment of the adaptive training / A.N. Vetrov, E.E. Kotova // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Innovative technologies of education": the materials of "The IVth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 15th-16th of March 2005 y. – SPb.: "IBI", 2005. – Vol.1. – P.47-48.

The contribution of the applicant ("AUT CMT SFA") consists in the definition of task, the development and description of the structure of the cognitive model in the environment of the adaptive training (at distance).

7.6.13. Vetrov A.N. The research of the convergent and the divergent intellectual abilities of the cognitive model of the examinee for the tasks of the information environment of the adaptive training / A.N. Vetrov, E.E. Kotova // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Innovative technologies of education": the materials of "The IVth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 15th-16th of March 2005 y. – SPb.: "IBI", 2005. – Vol.1. – P.49-50.

The contribution of the applicant ("AUT CMT SFA") consists in the statement and carrying out of a series of experiments, the description of the process of research of the convergent and divergent intellectual abilities of examinees for the formation of the cognitive models.

7.6.14. Vetrov A.N. The application of the intellectual training systems (for the automated estimation of the level of residual knowledge in the subjects of training and the diagnostics of the convergent and the divergent intellectual abilities of the cognitive model of the subjects of the information environment of the adaptive automated training) / A.N. Vetrov, N.A. Vetrov, E.E. Kotova // "Quality management in modern High school (HEI)", the section "Monitoring and support of the quality management system": the materials of "The IIIrd international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 21st-22nd of June 2005 y. – SPb.: "IBI", 2005. – Vol.3. – P.80-84.

The contribution of the applicant ("AUT CMT SFA") consists in the definition of task and the development of the diagnostic modules for the automated estimation of the level of residual knowledge and the various individual features of the contingent of trainees, and also the organization by him the practical approbation of scientific results at the preparation of the diploma-student Blinkov R.Y., "SPbSETU "LETI"", gr. 9832 (2005 y.), the mark of "The state attestation commission" "excellent", the theme "The development of the diagnostic module of the open educational portal for the tasks of the information environment of the automated remote training" (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)), at the preparation of the diploma-student Tasoyeva E.B., "SPbSETU "LETI"", gr. 9832 (2005 y.), the mark of "The state attestation commission" "excellent", the theme "The development of the program toolkit of diagnostics of the level of convergent intellectual abilities of the cognitive model of the examinee for the tasks of the information environment of the adaptive training" (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)), at the preparation of the diploma-student Fedoseyeva N.A., "SPbSETU "LETI"", gr. 9832 (2005 y.), the mark of "The state attestation commission" "good", the theme "The development of the program toolkit of diagnostics of the level of divergent intellectual abilities of the cognitive model of the examinee for the tasks of the information environment of the adaptive training" (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)).

7.6.15. Vetrov A.N. The adaptive information environment of the automated training based on the cognitive models / A.N. Vetrov, E.E. Kotova, N.N. Kuzmin // "Control and information technologies", the section "Information technologies of control and modeling": the materials of "The 4th All-Russian scientific conference" ("RAS"), RF, Saint-Petersburg city, the 10th-12th of October 2006 y. – SPb.: "The CSRI "Electric-device"", "SPbSETU "LETI"", 2006. – P.170-175.

The contribution of the applicant ("AUT CMT SFA") consists in the development of the structure of the adaptive information environment of the automated training based on the innovative parametrical cognitive models block.

7.6.16. Vetrov A.N. The cognitive modeling for the analysis of the information-educational environment / A.N. Vetrov, E.E. Kotova, N.N. Kuzmin // "Control and information technologies", the section "Information technologies of control and modeling": the materials of "The 4th All-Russian scientific conference" ("RAS"), RF, Saint-Petersburg city, the 10th-12th of October 2006 y. – SPb.: "The CSRI "Electric-device"", "SPbSETU "LETI"", 2006. – P.176-181.

The contribution of the applicant ("AUT CMT SFA") consists in the definition of task and the development of the innovative cognitive modeling technology for the system analysis of the information-educational environment (of remote training).

7.6.17. Vetrov A.N. The information environment of the automated training with the properties of adaptation based on the cognitive models / A.N. Vetrov, E.E. Kotova, N.N. Kuzmin // "Problems of cybernetics and informatics (computer science)", the section "Problems of control and the system analysis": the materials of "The international conference" ("ANAS"), The republic of Azerbaijan, Baku city, the 24th-26th of October 2006 y. – Baku: "The Azerbaijan national academy of sciences" ("ANAS"), 2006. – Vol.2. – P.202-205.

The contribution of the applicant ("AUT CMT SFA") consists in the statement of the complex task, the development and representation of modifications in the organization of the information-educational environment, including the automated (remote) training system with the properties of adaptation based on the parametrical cognitive models block, which includes the cognitive models of the subject of training and the means of training.

7.6.18. Vetrov A.N. The analysis of the information environment of the automated training with the properties of adaptation based on the cognitive models / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The VIth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 13th-14th of March 2007 y. – SPb.: "IBI", 2007. – Vol.1. – P.68-71.

The contribution of the applicant ("AUT CMT SFA") consists in the development of the conception of the system analysis of the information environment of the automated training with the properties of adaptation based on the innovative parametrical cognitive models block.

7.6.19. Vetrov A.N. The software of the automated educational environment with the properties of adaptation based on the cognitive models / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The VIth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 13th-14th of March 2007 y. – SPb.: "IBI", 2007. – Vol.1. – P.71-74.

The contribution of the applicant ("AUT CMT SFA") consists in the development of the software of the automated educational environment with the properties of adaptation based on the innovative parametrical cognitive models block.

7.6.20. Vetrov A.N. The program complex for the research of the adaptive information-educational environment based on the cognitive models / A.N. Vetrov // "Modern education: contents, technologies, quality", the section "Perspective technologies of training": the materials of "The XIIIth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 19th of April 2007 y. – SPb.: "SPbSETU "LETI"", 2007. – Vol.1. – P.142-144.

The contribution of the applicant ("AUT CMT SFA") consists in the development of the program complex for the research of the adaptive information-educational environment based on the innovative parametrical cognitive models block.

7.6.21. Vetrov A.N. The techniques and algorithms in the basis of the cognitive modeling technology / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Creation of the quality management system": the materials of "The Vth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 21st-22nd of June 2007 y. – SPb.: "IBI", 2007. – Vol.5. – P.86-89.

The contribution of the applicant ("AUT CMT SFA") consists in the development of techniques and algorithms at the basis of the innovative cognitive modeling technology.

7.6.22. Vetrov A.N. The adaptive means of training in the automated educational environment based on the parametrical cognitive models block / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Improvement of the quality management system in HEI": the materials of "The Vth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 21st-22nd of June 2007 y. – SPb.: "IBI", 2007. – Vol.5. – P.110-113.

The contribution of the applicant ("AUT CMT SFA") consists in the development of the adaptive means of training in the automated educational environment (at distance) based on the innovative parametrical cognitive models block.

7.6.23. Vetrov A.N. The features of the automation of diagnostics of the field of vision of the cognitive model of the subject of training for the analysis of the information environment of the adaptive training / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "New technologies of teaching": the materials of "The VIIth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 13th-14th of March 2008 y. – SPb.: "IBI", 2008. – Vol.1. – P.76-79.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the automation of diagnostics of the field of vision of the cognitive model of the subject of training for the system analysis of the information environment of the adaptive training, and also the organization by him the practical approbation of scientific results at the preparation of the diploma-student Prikhodko D.Y., "SPbSETU "LETI"", gr. 2321 (2008 y.), the mark of "The state attestation commission" "good", the theme "The program realization of the procedure of diagnostics of the achromatic and chromatic field of vision of the cognitive model of the subject of training for the analysis of the automated educational environment" (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)).

7.6.24. Vetrov A.N. The features of the automation of diagnostics of the color perception of the cognitive model of the subject of training for the analysis of the information environment of the adaptive training / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The VIIIth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 13th-14th of March 2009 y. – SPb.: "IBI", 2009. – Vol.1. – P.77-80.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the automation of diagnostics of the color perception of the cognitive model of the subject of training for the system analysis of the information environment of the adaptive training, and also the organization by him the practical approbation of scientific results at the preparation of the diploma-student Shaposhnikov A.V., "SPbSETU "LETI"", gr. 3321 (2009 y.), the mark of "The state attestation commission" "excellent", the theme "The program realization of the procedure of diagnostics of the parameters of color perception of the cognitive model of the trainee for the analysis of the information environment of automated training" (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)).

7.6.25. Vetrov A.N. The practical usage of the created complex of programs for the automation of research tasks of the adaptive information-educational environments / A.N. Vetrov // "Modern education: contents, technologies, quality", the section "Perspective technologies of training": the materials of "The XVth international conference" ("IHEAS"), RF, Saint-Petersburg city, the 22nd of April 2009 y. – SPb.: "SPbSETU "LETI"", 2009. – Vol.1. – P.252-254.

The contribution of the applicant ("AUT CMT SFA") consists in the research of practical use of the created complex of programs for the automation of the tasks of research of the adaptive information-educational environments (at distance).

7.6.26. Vetrov A.N. The practice of the analysis of the infrastructure of the information-educational environment based on the cognitive modeling technology / A.N. Vetrov // "Modern education: contents, technologies, quality", the section "Quality management of education": the materials of "The XVth international conference" ("IHEAS"), RF, Saint-Petersburg city, the 22nd of April 2009 y. – SPb.: "SPbSETU "LETI"", 2009. – Vol.2. – P.115-117.

The contribution of the applicant ("AUT CMT SFA") consists in the research of practice of the system analysis of the infrastructure of the information-educational environment on the basis of the cognitive modeling technology developed by him.

7.6.27. Vetrov A.N. The features of the analysis of the infrastructure of the information-educational environment based on the cognitive modeling technology and the cognitive models / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Monitoring and support of the quality management system": the materials of "The VIIth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 18th-19th of June 2009 y. – SPb.: "IBI", 2009. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the system analysis of the infrastructure of the information-educational environment on the basis of the cognitive modeling technology and the cognitive models.

7.6.28. Vetrov A.N. The features of the program realization of the laboratory practical work for the automated training system with the properties of adaptation based on the cognitive models / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Quality management of education in modern High school (HEI)": the materials of "The IXth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 16th-17th of March 2010 y. – SPb.: "IBI", 2010. – Vol.1. – P.32-36.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the program realization of the electronic laboratory practical work for the automated training system with the properties of adaptation based on the innovative parametrical cognitive models, and also the organization by him the practical approbation of scientific results at the preparation of the diploma-student Bocharova L.N., "SPbSETU "LETI"", gr. 4832 (2010 y.), the mark of "The state attestation commission" "excellent", the theme "The program realization of the procedure of the electronic laboratory practical work of the automated training system with the properties of adaptation based on the parametrical cognitive models block" (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)).

7.6.29. Vetrov A.N. The features of the automation of diagnostics of the equity of vision of the cognitive model of the subject of training for the analysis of the information environment of the adaptive training / A.N. Vetrov // "Modern education: contents, technologies, quality", the section "Perspective technologies of training": the materials of "The XVIth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 21st-22nd of April 2010 y. – SPb.: "SPbSETU "LETI"", 2010. – Vol.2. – P.45-48.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the automation of diagnostics of the acuity of vision of the cognitive model of the subject of training for the system analysis of the information environment of the adaptive training (at distance), and also the organization by him the practical approbation of scientific results at the preparation of the diploma-student Karyukhina A.P., "SPbSETU "LETI"", gr. 3831 (2009 y.), the mark of "The state attestation commission" "good", the theme "The program realization of the procedure of diagnostics of the acuity of vision of the cognitive model of the trainee for the analysis of the information environment of automated training" (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)).

7.6.30. Vetrov A.N. The features of the program realization of the electronic dean's office for the applied tasks of the system analysis based on the cognitive modeling technology / A.N. Vetrov // "Modern education: contents, technologies, quality", the section "Perspective technologies of training": the materials of "The XVIth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 21st-22nd of April 2010 y. – SPb.: "SPbSETU "LETI"", 2010. – Vol.2. – P.48-50.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the program realization of the electronic dean's office for the applied tasks of the system analysis on the basis of the cognitive modeling technology, and also the organization by him the practical approbation of scientific results at the preparation of the diploma-student Andreyeva K.A., "SPbSETU "LETI"", gr. 4832 (2010 y.), the mark of "The state attestation commission" "good", the theme "The program realization of the procedure of the electronic dean's office for the support of the system analysis of the information-educational environment based on the cognitive modeling technology" (spec. 05.13.01, 19.00.02 (19.00.03)).

7.6.31. Vetrov A.N. The features of the automation of diagnostics of the cognitive styles of the cognitive model of the subject of training for the analysis of the information environment of the adaptive training / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Information-telecommunication environment and its influence on the quality of High school (HEI)": the materials of "The VIIIth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 16th-19th of June 2010 y. – SPb.: "IBI", 2010. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the automation of diagnostics of the cognitive styles of the cognitive model of the subject of training for the system analysis of the information environment of the adaptive training, and also the organization by him the practical approbation of scientific results at the preparation of the diploma-student Anufriyeva O.K., "SPbSETU "LETI"", gr. 3831 (2009 y.), the mark of "The state attestation commission" "good", the theme "The program realization of the procedure of diagnostics of the cognitive styles of the cognitive model of the trainee for the analysis of the information environment of automated training" (spec. 01.02.01, 05.13.01, 19.00.02 (19.00.03)).

7.6.32. Vetrov A.N. The realization of the automation of diagnostics of the cognitive stiles of the cognitive model of the subject of training for the system analysis of the information environment of the adaptive training / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The Xth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 01st of April 2011 y. – SPb.: "IBI", 2011. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the research of the features of realization of the automation of diagnostics of the cognitive styles of the cognitive model of the subject of training for the system analysis of the information environment of the adaptive training (at distance).

7.6.33. Vetrov A.N. The features of the cognitive cylinder and the cognitive sphere for the tasks of the system and financial analysis of the difficult object, process and phenomenon / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Mathematical methods and information technologies in economics": the materials of "The Xth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 01st of April 2011 y. – SPb.: "IBI", 2011. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the cognitive cylinder and the cognitive sphere for the applied tasks of the system and financial analysis of the difficult object, process and phenomenon.

7.6.34. Vetrov A.N. The cognitive cylinder and the cognitive sphere for the tasks of the system and financial analysis based on the cognitive modeling technology / A.N. Vetrov // "Modern education: contents, technologies, quality", the section "Perspective technologies of training": the materials of "The XVIIth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 20th of April 2011 y. – SPb.: "SPbSETU "LETI"", 2011. – Vol.2. – P.262-264.

The contribution of the applicant ("AUT CMT SFA") consists in the development and the research of the cognitive cylinder and the cognitive sphere for the tasks of the system and financial analysis on the basis of the innovative cognitive modeling technology.

7.6.35. Vetrov A.N. The genesis and the differences of cognitive circle, cognitive disc, cognitive cylinder, cognitive cone and cognitive sphere / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Monitoring and estimation of the quality of university education and scientific activity": the materials of "The IXth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 16th-19th of June 2011 y. – SPb.: "IBI", 2011. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the research of genesis and differences of the cognitive circle, cognitive disk, cognitive cylinder, cognitive cone and cognitive sphere as the difficult cognitive models.

7.6.36. Vetrov A.N. The features of the cognitive disc for the tasks of the system and financial analysis / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Monitoring and estimation of the quality of university education and scientific activity": the materials of "The IXth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 16th-19th of June 2011 y. – SPb.: "IBI", 2011. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the cognitive disk for the tasks of the system and financial analysis.

7.6.37. Vetrov A.N. The features of the cognitive cone for the tasks of the system and financial analysis / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Monitoring and estimation of the quality of university education and scientific activity": the materials of "The IXth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 16th-19th of June 2011 y. – SPb.: "IBI", 2011. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the research of features of the cognitive cone for the tasks of the system and financial analysis.

7.6.38. Vetrov A.N. The electronic library for the automated training system with the properties of adaptation based on the cognitive models / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The XIth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 16th of March 2012 y. – SPb.: "IBI", 2012. – 2 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development and research of the electronic library for the automated training system with the properties of adaptation based on the parametrical cognitive models.

7.6.39. Vetrov A.N. The electronic card for the automated training system with the properties of adaptation based on the cognitive models / A.N. Vetrov // "Actual problems of economics and new technologies of teaching (Smirnov readings)", the section "Educational politics and new technologies of teaching": the materials of "The XIth international scientific-practical conference" ("IHEAS"), RF, Saint-Petersburg city, the 16th of March 2012 y. – SPb.: "IBI", 2012. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development and research of the electronic card for the automated training system with the properties of adaptation based on the parametrical cognitive models.

7.6.40. Vetrov A.N. The features of the cognitive modeling technology for the complex analysis / A.N. Vetrov // "Modern education: contents, technologies, quality", the section "Perspective technologies of training": the materials of "The XVIIIth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 18th of April 2012 y. – SPb.: "SPbSETU "LETI"", 2012. – 2 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development and research of features of the cognitive modeling technology for the complex analysis.

7.6.41. Vetrov A.N. The semantic model of saving, extraction and search of information for the electronic library based on the cognitive models / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Educational politics and new technologies of teaching": the materials of "The Xth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 30th-31st of October 2012 y. – SPb.: "IBI", 2012. – 2 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development and research of the semantic model of saving, extraction and search of information for the electronic library based on the parametrical cognitive models.

7.6.42. Vetrov A.N. The processor of parallel processing of data for the automated training system with the properties of adaptation based on the cognitive models / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Educational politics and new technologies of teaching": the materials of "The Xth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 30th-31st of October 2012 y. – SPb.: "IBI", 2012. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the development and research of the processor of parallel processing of data of the automated training system with the properties of adaptation based on the parametrical cognitive models block.

7.6.43. Vetrov A.N. The features of practical use of the cognitive modeling technology for the complex analysis / A.N. Vetrov // "Quality management in modern High school (HEI)", the section "Mathematical methods and information technologies in economics": the materials of "The Xth international scientific-methodical conference" ("IHEAS"), RF, Saint-Petersburg city, the 30th-31st of October 2012 y. – SPb.: "IBI", 2012. – 3 p.

The contribution of the applicant ("AUT CMT SFA") consists in the research of the features of practical use of the cognitive modeling technology for the complex analysis.

7.6.44. Vetrov A.N. The environment of automated training with the properties of adaptation based on the cognitive models / A.N. Vetrov // "Informatics (computer science) and computer technologies", section "The theoretical bases of informatics (computer science) and informatization of society", section "Information systems and technologies", section "Modeling of system", section "The processing and analysis of big data": the materials of "The city seminar at "The scientific council on informatization of Saint-Petersburg city" at "The Government of Saint--Petersburg city"" ("RAS"), RF, Saint-Petersburg city, the 26th of June 2015 y. – SPb.: ""SPII" of "RAS"", 2015. – 3 p. (+ 28 slides).

The contribution of the applicant ("AUT CMT SFA") consists in the development of structure and content of the dissertation on the rights of manuscript on the competition of scientific degree of the cand. of tech. sciences on spec. 05.13.01 – "The system analysis, control and information processing".

8. The dissertation of Vetrov A.N. is the result of his scientific and practical activity, is constructed theoretically and methodically competently, the style of statement is scientific and accurate, the content of scientific work allows to speak about high qualification of the author.
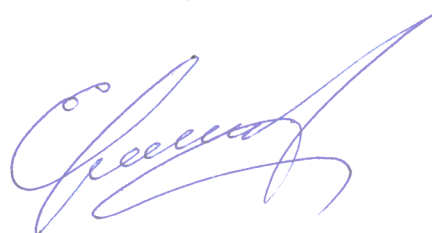
HAVE DECIDED:
1. The specified dissertation prepared by Vetrov A.N. is executed on the relevant theme and in the considerable degree solves the put relevant scientific problem.
2. The chair "IS" recommends the submitted specified dissertation of Vetrov A.N. "The environment of automated training with the properties of adaptation based on the cognitive models" to the defence in "The dissertation council" of "SPbSU" (D.212.232.50) on the competition of scientific degree of the candidate of technical sciences on spec. 05.13.01 – "The system analysis, control and information processing".

The head of the chair "IS"
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