

The response
of the scientific supervisor,
professor of the chair "Information systems"
of the faculty "Applied mathematics – control processes"
of "The Saint-Petersburg state university",
the member of "The American mathematical society",
doctor of physical-mathematical sciences, professor Kvitko Alexander Nikolaevich
on the dissertation on the rights of manuscript
of Vetrov Anatoly Nikolaevich
on the theme "The environment of automated training with the properties of adaptation
based on the cognitive models"
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"

On the 01st of May 2003 y. Vetrov A.N. has entered and on the 18th of May 2007 y. has graduated with honors from the full-time postgraduate study 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"" ("SPbSETU "LETI") with presentation of the completed dissertation work on the 07th of June 2005 y., the scientific supervisor – cand. of tech. sci., prof. Kuzmin Nikolay Nikolaevich (has died on the 08.07.2016 y.).

From the 01st of September 2004 y. to the 31st of August 2010 y. Vetrov A.N. worked at the chair "ACP" as the teacher of the discipline "Informatics" (has independently developed the methodical support): gave the lectures in six groups of a day department and two groups of an evening department and carried out the lab. practical work in three groups of a day department and two groups of an evening department.

On the 03rd of October 2006 y. and on the 11th of December 2006 y. the predefences of his dissertation at the chair "ACP" with recommendations to defence on the specialty 05.13.01 have taken place.

From the 12th of March 2003 y. he systematically presented the results of his dissertation at the various scientific conferences of "IHEAS" and the seminars of the chair "ACP", held at "The international banking institute" ("IBI") and "SPbSETU "LETI"".

From the 01st of May 2003 y. Vetrov A.N. in the full-time postgraduate study at the chair "ACP" has independently conducted the innovative dissertation researches, directed to the solution of the relevant scientific problem of the development of the new environment of automated training with the properties of adaptation based on the cognitive models.

The relevance of the theme of his dissertation is caused by the need of creation of the modern approaches, methods and technologies for the research of opportunities of the automated information-educational environment (at distance) and the estimation in the efficiency of functioning of the adaptive means of training, allowing to generate the training (information-educational) influences based on the individual features of the diverse subjects of training.

The number of theoretical and practical scientific results is offered by Vetrov A.N.:

- the structure of the innovative information-educational environment (at distance), including a number of new modifications in the organization and technology of the (automated) educational process for the ensuring of the accounting of the different individual features of the contingent of trainees (the subjects of training);
- 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, including the technique of its use, the algorithm of formation of the structure of the parametrical cognitive model on the basis of two innovative ways of representation of the cognitive model (the oriented graph combining the theory of sets and the multilevel scheme), the techniques of research of the parameters of the cognitive models of the subject and means of training and the algorithm of processing of a posteriori results of testing of trainees;
- the structures of the cognitive models of the subject of training and the means of training;
- the complex of programs for the automation of the various research tasks: the adaptive means of training (the adaptive electronic textbook), and also the main and applied diagnostic modules (the algorithms and programs).

The offered provisions allow to realize the additional contour of adaptation due to the accounting of the individual features of a trainee and the technical capabilities of the means of training at the generation of different educational influences, to carry out the complex analysis of the (adaptive) information-educational environment, of the automated (remote) training system (at distance) and to provide the increase in the efficiency of process of the formation of knowledge of the trainee.

The submitted dissertation contains new scientific and practical results, use of which allows to carry out the complex system analysis of the automated information-educational environment of educational establishment and to increase in the efficiency of process of the formation of knowledge of the contingent of trainees.

Interest to scientific work has been shown by Vetrov A.N. even in the period of training at "SPbSETU "LETI"" (on the graduate chair "ACP" of the faculty "CTI"), directly which he has graduated with honors degree on the 11th of February 2003 y., and also has been awarded with the diploma of the IInd degree of the open competition of "SPbSETU "LETI"" on the best scientific-research work of diploma-students in 2003 y.; besides on the 24th of June 2004 y. Vetrov A.N. has graduated with honors degree from "IBI" (the faculty "Professional retraining and improvement of professional skills", the chair "Banking" ("B")) and he was engaged in the development of the dissertation on the spec. 08.00.10 – "Finance, monetary circulation and credit" under the leadership of the head of the chair "B" of "IBI" and "SPbSUEF "FINEC", d.es., prof. Beloglazova G.N. (has died 14.06.2014 y.).

In 2005 y. on the theme of dissertation he had 25 printed works, 3 of them are published in the editions, recommended by "HAC of RF" for the publication of the scientific results of dissertation. The scientific results of his researches were used in the training process from 2003 y. to 2006 y. on the disciplines "Artificial intelligence in the tasks of control" (a day department) and "Informatics" (a day and an evening departments) at the chair "ACP" of "SPbSETU "LETI"".

On the theme of dissertation Vetrov A.N. has published 43 on 2007 y. (80 on 2012 y.) scientific works: 01 textbook and 03 methodical instructions to the lab. works on the discipline "Computer science"; 02 sections in 01 coll. scientific monography of "IHEAS" (with forms. coauthors-teachers); 08 (16) training manuals and scientific monographies (without coauthors); 01 (02) report(s) on the individual initiative SRW; 05 (12) scientific articles in the scientific journals recommended by "HAC of RF", from them 00 (05) scientific articles were deposited in "'VINITI" of "RAS"; 22 (43) scientific reports in the materials of 11 (24) international scientific conferences, and also 04 copyright certificates about deposition and registration of the works – the objects of intellectual property in "RAS" (RF, Moscow city) have been received by him.

In 2005-2007 y. (2012 y.) the norm for the candidate (doctor) of technical science was executed (it was required 02 (10) scientific articles in the scientific journals from the list of "HAC of RF").

During the continuous scientific work on the own dissertation Vetrov A.N. has proved himself as the qualified teacher and the scientific worker (scientist), able to put and to solve the modern difficult scientific-technical tasks. By the results of training in the full-time postgraduate study on the competitive basis has been left at the chair "ACP" of the faculty "CTI" of "SPbSETU "LETI"" in the post of the assistant (from 2005 y). He has independently developed the methodical support of the discipline "Informatics", directly including the theoretical course of lectures for the reading of lectures (lecturing) and the methodical instructions to the laboratory works for the carrying out the laboratory practical work. He successfully carried out all available kinds of training-methodical and scientific loading.

Due to the aforesaid I consider, that the presented dissertation work conforms to all requirements, imposed to the candidate and doctoral dissertations, and its author Vetrov A.N. deserves the award to him the scientific degree of the candidate of technical sciences on the specialty 05.13.01 – "The system analysis, control and information processing".

The "11" of October 2018 y.

The scientific supervisor,
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Александр Николаевич Квитко А. Н. заверяю.

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А. Н. Квитко Кудрявцева

