DEVELOPMENT OF TUTORIALS OF EDUCATIONAL AND LABORATORY BASE ON THE BASIS OF TRAINING PROCESS VIRTUALIZATION

Kotenko V.V., Rumyantsev K.E., Polyakov A.I., Kertiev A.R.

South federal university
Taganrog, Russia

Improving the quality of education is a priority for modern development. An important part of this trend is the formation of a modern laboratory base. However, when training on educational programs of implementation of this component collides with the fundamental problem in the mandatory limits access to modern means of handling and protection of information and special requirements to the premises of their location. The solution to this problem provides application virtualization approach theory [1], implemented on the basis of computer technologies. The implementation of these approaches in terms of creating an effective teaching and laboratory facilities conducted in the Southern Federal University (Russia) since 2003. The development of laboratory facilities and are being implemented comprehensively in two main areas: 1) developing, patenting and introduction of teaching aids; 2) the development, patenting and introduction of means testing (assessment) of quality education.

The system developed learning tools includes: 1) the study of complex computer simulations based on theoretical course training complex software system to measure the quality of education (certificate number 2003612147 of the Russian Federation. 27.06.03.); 2) the system virtual encryption (patent number 2,260,916 of the Russian Federation. Published: 20.09.2005 Bulletin. №26. S.1-31); 3) virtual scrambling system (certificate number 2010610316 of the Russian Federation. 11.01.2010); 4) The virtual adaptive scrambling (certificate number 2010611475 of the Russian Federation. 19.02.2010); 5) laboratory complex study of the effectiveness of ways amplitude scrambling (certificate number 2010611474 of the Russian Federation. 19.02.2010); 6) research laboratory complex virtual scrambling (certificate number 2010614354 of the Russian Federation. 6.07.2010); 7) research laboratory complex adaptive virtual scrambling (certificate number 2010614355 of the Russian Federation. 6.07.2010); 8) evaluate the effectiveness of the protection system based on audio virtualization comprehensive definition of intelligibility and redundancy (certificate number 2010610039 of the Russian Federation. 11.01.2010); 9) The system of formation of a virtual image of a verbal identity (certificate number 2010613972 of the Russian Federation. 18.06.2010); 10) evaluate the effectiveness of the system and the quality
of scrambling from the standpoint of two-dimensional correlation analysis of virtual verbal images (certificate number 2010613971 of the Russian Federation. 18.06.2010); 11) evaluate the effectiveness of the system and the quality of scrambling a three-dimensional position of the correlation analysis of virtual verbal images (certificate number 2010614356 of the Russian Federation. 6.07.2010); 12) software and hardware protection of information on the objects of information (certificate number 2010610039 of the Russian Federation. 11.01.2010); 13) system of multi-factor authentication (certificate number 2010613972 RF. 18.06.2010); 14) Complex aurikulodiagnostic authentication (certificate number 2010613972 of the Russian Federation. 18.06.2010).

As a result, a training and laboratory facilities is constantly evolving structure of the copyright of software and hardware-software complexes and systems.

References