

NEW TECHNOLOGIES IN E-LEARNING AND CREATIVE PEDAGOGIC IN CONTINUOUS ENGINEERING EDUCATION

Prof. Viacheslav Zvonov

Institute of State Fire Safety Service, St. Petersburg, Russia

v_zvonov@mail.ru

Dr. Viacheslav Kulagin

St.Petersburg State University of Information Technologies, Mechanics and Optics,
Saint-Petersburg, Russia

klvs@mail.ru

Dr. Alexander Mezhenin

St.Petersburg State University of Information Technologies, Mechanics and Optics,
Saint-Petersburg, Russia

mezhenin@inbox.ru

The modern education does not guarantee the career progress, and that's why it is not requested enough. All the educational chains prepare specialists of a mean level, but the human resources market needs mostly unqualified operators, or highly specialized professionals. The educational functions of a person's social integration passed to mass media such as TV, radio and billboards.

The education's effectiveness as a system of informational reproduction decreases steadily which is partially caused by the age decrease of cognitive activity.

The system of engineering education is supposed to ensure conditions for growing a new generation of highly educated engineers. These professionals are to be able to realize a dynamic economic progress and a bursting development in different practical fields, basing on high technologies. These specialists should have the ideas of self-improvement, professionalism, and original work-style as high priority during the whole lifetime.

New generation engineers should be effectively and socially protected by the quality of the received education from the real danger of becoming a plug-in material for technologies.

High level of methodical culture and supreme creative use of cognition methods represent a quality of the engineering education.

When realizing the doctrine of engineering education, it is very important to find and create untraditional technologies for social and pedagogical solutions, to apply new high technologies which guarantee an increasing effectiveness of educational process. The creation of technologies for mass talent development and use of distance education are also to be considered.

At present time the whole world uses a rather drastic passage from the "school of memory" to an institution, where students learn to use their own thinking. The conversion of the engineering educational system into a sphere for exploration of cognitive and engineering activities and of communicative engineering culture revolutionize the image of the University and its teaching and educational process.