

The purpose of the work lies in improving the efficiency and quality of computer education by means of development and implementation of a new competent approach to preparation and training of specialists in the IT field, based on innovative theoretical-technological developments in organization and managing of electronic learning (including distance learning) and project activity in higher education institutions.

Scientific novelty is defined by development of:

- a concept of innovative development of university education in the IT field, that assumes priority practical orientation in the realization of the competent approach in teaching;
- a methodology of organization and managing of IT projects in the process of training in collaboration with local and foreign IT businesses;
- a concept of using educational online courses as a base for the realization of the system of training specialists in the IT field;
- a methodology of electronic learning, directed at the development of individual qualities of IT specialists;
- a methodology of IT support of the processes of managing the quality of provided education services, including the ones in the IT field, meeting the requirements of the Bologna Process.

Scientific and practical importance of the work lies in the development and implementation into the educational process:

- methods and models of forming the educational content in the IT field;
- informational technologies of electronic learning, including online video conferences;
- hardware and software support of informational systems of distance learning, managing the educational process, managing projects, and support of the process of managing the quality in higher education institutions.

Over the 2008-2013 period, authors contributed to:

- modernizing educational and methodical materials used for training IT specialists according to all modern requirements and international standards;
- developing and implementing intellectual systems of electronic learning and adaptive

distance learning courses;

- carrying out 60 IT projects, including 12 international ones ( 8 of which were carried out under the Tempus programme) that gathered recognition on both national and international levels.

The results are proved by a series of works done by authors during the 2008-2013 period, that include:

- [14 monographs](#) ;
- [6 textbooks](#) ;
- [7 patents and copyright certificates for works](#) ;
- [80 scientific articles in professional publications, 34 of them being listed in international scientific databases, including 9 in the SCOPUS database with a general identifier &nbsp;SJR 0,817](#) .