

# **E-SCIENCE IN AZERBAIJAN: STATE-OF-THE-ART AND DEVELOPMENT PERSPECTIVES**

R.M. Alguliyev and T. Kh. Fataliyev

Institute of Information Technology of Azerbaijan National Academy of Sciences

Az1141, 9, F.Agayev str., Baku, Azerbaijan Republic, e-mail:secretary@iit.ab.az,  
depart1@iit.ab.az

Process of Information Society (IS) establishment in Azerbaijan has intensive character and includes all strategic areas of the society. One of such activities is a very topical e-science project implemented in National Academy of Science. The project aims at establishment and development of scientific activities in accordance with present requirements, perfection of scientific management, formation of national scientific information space and achievement of close interaction between scientific organizations, groups and scientists, increasing efficiency of scientific management and scientific researches, development of all fields of science up to the modern world standards and integration into the world scientific space by means of ICT opportunities. Recently, achievements, scientific experience and potential made in IS arrangement and the status of ICT application in scientific organizations activity create opportunity for e-science conception fulfillment (Azerbaijan junction of the International Internet network has been formed and all scientific organizations provided with it, SciNet network designed, web-sites and e-libraries developed for most of organizations, ICT usage within scientific researches and etc.). The solution of the issues includes the following: First, study of the world experience, regulation of information distribution based on results of monitoring and improvement of legally enforceable enactments; second, improvement and development of communication-network infrastructure – logistics support, internal computer network creation for scientific organizations and provision of high speed internet, creation of SciNet corporative network, implementation of integration process with educational facilities and international scientific networks; third, creation of information resources with different assignment; forth, establishing new online scientific relationships in various science fields, establishing close interactions with international scientific organizations, scientific informational spaces formation, creation of calculation environments based on supercomputer and grid technologies for solution of the issues that require large calculation and information resources, and finally, scientific workers education in modern ICT field and training the personnel for hardware and software maintenance.

**Key words:** information society, e-science, ICT, communication-network infrastructure, national scientific informational spaces, monitoring, information resources, grid technologies