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SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
New Worlds - Innovative Space Education and Outreach (7)

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ORGANIZATIONAL PRINCIPLES AND METHODOLOGY OF USING SPACE REMOTE SENSING DATA IN INNOVATIVE EDUCATION

Abstract

Nowadays innovative education in developed countries is built by mostly using interaction between three main elements: state, science and business. Within the scope of this "triangle" key drivers of development of educational system are: research laboratories, universities and high-tech companies. Fast progress in information technologies and more active application of such technologies in education makes possible a closer integration of science and education. Actual scientific data and results of its processing may be used in educational process, makes it possible to demonstrate various natural and anthropology phenomena, show these processes in dynamic development and mutual influence. Data received from remote sensing satellites can form the basis for extra-curriculum and advance classes. The article demonstrates examples of efficient use of advanced informative and educational technologies of receiving and processing real-time remote sensing data in educational process, using examples of interaction between university laboratories, centres of remote sensing data processing, academic institutes and industry on one side and high schools on the other side. At the same time informative-educational environment of high-school is extended by means of a merger of its environment with such of a university and via it - with a high-tech company and a research laboratory. The article demonstrates that in order to implement such educational technology it is necessary to develop certain tools. This approach allows forming and developing professional competencies of students in integrated manner, to teach them how to process information and to solve applied scientific problems. Practical classes at which students work with unique sources of information – images from space – help to boost motivation to further education, assist students in educated selection of future profession in high-tech field.