On-line Control of the Natural and Anthropogenic Safety in Krasnoyarsk Region

Authors: T. Penkova, A. Korobko, V. Nicheporchuk, L. Nozhenkova, A. Metus

Abstract : This paper presents an approach of on-line control of the state of technosphere and environment objects based on the integration of Data Warehouse, OLAP and Expert systems technologies. It looks at the structure and content of data warehouse that provides consolidation and storage of monitoring data. There is a description of OLAP-models that provide a multidimensional analysis of monitoring data and dynamic analysis of principal parameters of controlled objects. The authors suggest some criteria of emergency risk assessment using expert knowledge about danger levels. It is demonstrated now some of the proposed solutions could be adopted in territorial decision making support systems. Operational control allows authorities to detect threat, prevent natural and anthropogenic emergencies and ensure a comprehensive safety of territory.

Keywords: decision making support systems, emergency risk assessment, natural and anthropogenic safety, on-line control, territory

Conference Title : ICDCS 2015 : International Conference on Decision and Control Systems **Conference Location :** Amsterdam, Netherlands

Conference Dates: August 06-07, 2015