

Peril's Environment of Energetic Infrastructure Complex System, Modelling by the Crisis Situation Algorithms

Authors : Jiří F. Urbánek, Alena Oulehlová, Hana Malachová, Jiří J. Urbánek Jr.

Abstract : Crisis situations investigation and modelling are introduced and made within the complex system of energetic critical infrastructure, operating on peril's environments. Every crisis situations and perils has an origin in the emergency/ crisis event occurrence and they need critical/ crisis interfaces assessment. Here, the emergency events can be expected - then crisis scenarios can be pre-prepared by pertinent organizational crisis management authorities towards their coping; or it may be unexpected - without pre-prepared scenario of event. But the both need operational coping by means of crisis management as well. The operation, forms, characteristics, behaviour and utilization of crisis management have various qualities, depending on real critical infrastructure organization perils, and prevention training processes. An aim is always - better security and continuity of the organization, which successful obtainment needs to find and investigate critical/ crisis zones and functions in critical infrastructure organization models, operating in pertinent perils environment. Our DYVELOP (Dynamic Vector Logistics of Processes) method is disposables for it. Here, it is necessary to derive and create identification algorithm of critical/ crisis interfaces. The locations of critical/ crisis interfaces are the flags of crisis situation in organization of critical infrastructure models. Then, the model of crisis situation will be displayed at real organization of Czech energetic crisis infrastructure subject in real peril environment. These efficient measures are necessary for the infrastructure protection. They will be derived for peril mitigation, crisis situation coping and for environmentally friendly organization survival, continuity and its sustainable development advanced possibilities.

Keywords : algorithms, energetic infrastructure complex system, modelling, peril's environment

Conference Title : ICEESD 2015 : International Conference on Energy, Environment and Sustainable Development

Conference Location : Istanbul, Türkiye

Conference Dates : November 27-28, 2015