

Computational Assistance of the Research, Using Dynamic Vector Logistics of Processes for Critical Infrastructure Subjects Continuity

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Abstract : These Computational assistance for the research and modelling of critical infrastructure subjects continuity deal with this paper. It enables us the using of prevailing operation system MS Office (SmartArt...) for mathematical models, using DYVELOP (Dynamic Vector Logistics of Processes) method. It serves for crisis situations investigation and modelling within the organizations of critical infrastructure. In the first part of the paper, it will be introduced entities, operators and actors of DYVELOP method. It uses just three operators of Boolean algebra and four types of the entities: the Environments, the Process Systems, the Cases and the Controlling. The Process Systems (PrS) have five "brothers": Management PrS, Transformation PrS, Logistic PrS, Event PrS and Operation PrS. The Cases have three "sisters": Process Cell Case, Use Case and Activity Case. They all need for the controlling of their functions special Ctrl actors, except ENV - it can do without Ctrl. Model's maps are named the Blazons and they are able mathematically - graphically express the relationships among entities, actors and processes. In the second part of this paper, the rich blazons of DYVELOP method will be used for the discovering and modelling of the cycling cases and their phases. The blazons need live PowerPoint presentation for better comprehension of this paper mission. The crisis management of energetic crisis infrastructure organization is obliged to use the cycles for successful coping of crisis situations. Several times cycling of these cases is a necessary condition for the encompassment of the both the emergency event and the mitigation of organization's damages. Uninterrupted and continuous cycling process bring for crisis management fruitfulness and it is a good indicator and controlling actor of organizational continuity and its sustainable development advanced possibilities. The research reliable rules are derived for the safety and reliable continuity of energetic critical infrastructure organization in the crisis situation.

Keywords : blazons, computational assistance, DYVELOP method, critical infrastructure

Conference Title : ICMCMSE 2015 : International Conference on Mathematical and Computational Methods in Science and Engineering

Conference Location : Rome, Italy

Conference Dates : December 03-04, 2015