

ABSTRACTS

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SCIENTIFIC BASIS FOR THE ONTOLOGY OF DESIGNING

The article discusses the scientific basis for a currently forming field of scientific study (scientific research field), that outlines the scope of the essential issues of project activity and the design process in general, including the design environment, subjects of the design process, their properties and relations in addition to the traditional objects, systems and processes. An approach to distinguish the field of study and to map it on the current science differentiation is made. The ontology of designing is being looked at as an integrative scientific discipline.

Keywords: *ontology, design, science, science differentiation, integration of science, research object, the object of study.*

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ONTOLOGY OF COMPETENCE CENTERS ON THE BASIS OF MODERN CATASTROPHE THEORY IN INTELLIGENT ENVIRONMENT OF THE «CLOUD» MODEL

The formalized model of complex ontology of the competence centre is considered on the basis of intelligent technology iPSE (Intelligent Problem Solving Environment) and high-performance computing environment of the «cloud» model. The developed model of ontology takes into account extension of the iPSE technology functionality by means of event workflow (WF) modification. The directions of the practical applications of developed ontology knowledge system are specified within an implementation of the information representation and processing concept in tasks of extreme situation control in complex dynamic environment.

Keywords: *ontology, centre of the competence, modern of catastrophe theory, intelligent technologies, high-performance computing, cloud computing model, threat of flood, emergency situation, complex dynamic environment.*

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ONTOLOGY REPOSITORY AS MEANS OF A REUSE OF SEMANTIC KNOWLEDGE FOR RECOGNITION OF INFORMATION OBJECTS

In article presents the analysis of means and structures for effective storage and a reuse, a choice relevant ontologies or their components used in intellectual information systems for the decision of problems of recognition, search and a choice of information objects in the distributed environment. Requirements on creation of conceptual structure of an ontologies repository, the whole complex of adjacent problems aimed at the decision on storage, search to estimation, safe use, personifications, ontologies integration taking into account requirements of standards are formulated and proved. For performance of objects in view methods of integration of semantic search systems with ontologies repositories for the description of a subject domain of search that has allowed to consider new requirements to standards of the ontologic metadata and forms of their representation are offered. Practical uses ontologies repositories has allowed to provide a number of quality standards, both with users, and experts that has allowed to expand consi-

derably areas of use of search system and to provide efficiency of performance of problems of recognition of various types of intellectual information objects.

Keywords: *Ontology, Ontology repository, information object, semantic search, interoperability, metadata, Standards Semantic Web.*

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MODELING AND ABSTRACTION

The paper deals with the problem of the relationship of concepts of modeling and abstraction. The status of the act of abstraction in the modeling process is determined on the basis of logical and methodological analysis of the concepts of the model, modeling and abstraction, as well as their relationships, and the concept of abstractness of models is introduced.

Keywords: *model, modeling, abstraction, mapping, isomorphism, substitution.*

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TWO NEW UPPER LEVEL CONCEPTS FOR THE MULTI-CRITERIA OPTIMISATION ONTOLOGY

Two new concepts of the optimal decision making theory are proposed. Those new concepts possess a high degree of generality: the extended principle of Pareto optimality and confident judgment of the decision-maker.

Keywords: *multi-criteria optimization, decision making, decision-maker, means of uncertainty accounting.*

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THE CONCEPTUAL MODEL FOR MITIGATION OF THE CORPORATE CONFLICTS OF INTERESTS BETWEEN SHAREHOLDERS AND MANAGEMENT: TRANSFORMATION OF CORPORATION INTO PARTNERSHIP, BASED ON LEASE RELATIONSHIP

The article is dedicated to (from the standpoint of ways of dealing with) the well-known corporate conflict of interests between shareholders and management of contemporary corporation. The author's concept assumes that the essence of this conflict lies in distribution of profit from using some property between its owner and its executive personal, functioning inside one juridical person. The author suggest to reorganize this subjects of corporate relations into two different juridical persons (equal in rights and not affiliated), interacting on the basis of long-term and predictable lease («Partnership»). The article gives rules for interacting between property's owner and leaseholder, operating this property for making income on the end-user's market of goods or services. The functional model of leaseholder company and rules of subject's interaction inside such company are proposed under assumption that innovation/investment partnership with property's owner doesn't prevent ownership of leaseholder company by its personal. The article makes the supposition, that in constructing of a model of a self-governing leaseholder company it is advisable to apply the theory of intersubjective management.

Keywords: *management set-up, intersubjectivity, corporation, partnership, self-identification, self-governance, business operator, management, investor, lease.*