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Implementing a New System for Recording the Effective Doses for Patients Investigated by Radiological Imaging Investigations

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ABSTRACT

The Romanian project of an integrated system for radiation safety of the patients investigated by radiological imaging methods, it's implementation flows and statistical results are presented in this paper. The new system is based on smart cards and Public Key Infrastructure, and allows radiation effective dose data storage, a cumulative method and a more accurate reporting system.

KEYWORDS: radiation safety, radiological smart cards, project implementation.

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The entrepreneurial activity, from theory to practice

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ABSTRACT

Lately, in Romania, a lot of campaigns for promoting the entrepreneurship were initiated, which led to a development of the knowledge. The role of the schools was the most important in these campaigns, many students being interested in entrepreneurship. Thus, a new notion appeared, "training firm" [1].

This represents the model of a company, with educational purpose. The model allows simulating the activity of a real economic company. In a training firm, all the existent economic activities are applied, starting with acquisitions, continuing with the inventory of the tasks and ending with the selling.

KEYWORDS: Training Firm, Business Simulation

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Context-aware Mobile Collaborative Learning Application

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ABSTRACT

In this paper, an innovative mobile application is proposed, which highly exploits gesture-based activities (thus the application context) and permits the users to collaborate and interact in a quick and attractive manner. The application is presented as a learning tool, validating once again the importance of m-learning, in particular and ubiquitous learning, in general. The paper provides a review of similar applications and an in-depth description of the new one, from both functional and technological point of view.

KEYWORDS: m-learning, collaborative learning, gesture-based application

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Material selection with statistical methods

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ABSTRACT

The paper presents a few classification and ordering types applied to an example from the automotive industry (material candidates for the car body construction). The variety of properties / attributes imposes different evaluations for metrical/ordinal scales and the necessary statistical calculus. All the methods are principally based on the analysis of variance, viewed as a risk measure. The final comparison has as result the most valuable materials: Titanium sheet, Glass Reinforced Plastics (GRP) and Carbon Fiber Composite.

KEYWORDS: materials ranking, correlation, variance analysis

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Multivariate analysis of some important parameters of electrical machines

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ABSTRACT

The paper is concerned with the principal component analysis and factor analysis of data for threephase asynchronous electrical machines of 300 W. The observed data are: torque (M), rotation speed (n), voltage (U) and current (I).

KEYWORDS: principal component analysis, factor analysis, torque, rotation speed, voltage, current

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MCDM and Engineering Applications

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ABSTRACT

The complexity of decisions in the actual engineering problems imposes the employ of new techniques, more and more computer assisted, based on mathematics and psychology. In the industrial praxis the efficiency analysis must operate frequently with inaccurate data. The analytic hierarchy process (AHP) offers a good opportunity to process such situations. The high expansion produced o diversification of the various methods in the field covered by the MCDM or MCDA, well-known acronyms for multiple-criteria decision-making and multiple-criteria decision analysis or MADM (multi-attribute decision-making), incorporating AHP to. The paper presents an overview of the methods, some engineering applications of MCDM and offers a few statistical developments in the decision process.

KEYWORDS: engineering, multiple-criteria decision-making

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Innovation and Creativity in the Bucharest INTEGRAL-Management Model

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ABSTRACT

The paper is exploring the importance of innovation and creativity from the perspective of the Bucharest INTEGRAL-Management Model. Thus it analyzes the eight principles at the foundation of the model in order to seek for the importance of innovation and creativity connected to the eight principles.

KEYWORDS: Innovation, Creativity, Integral Management

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