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An Advanced Research on ISO Certificates Number

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Abstract
Business standardization developed intensely in the second decade of the 21st century. In the end 2016 (31st of December) there were: (i) 1,644,357 certificates to ISO 9001, 13485, 14001, 16949, 22000, 27001, 50001, 22301, ISO 20000-1, ISO 28000 and ISO 39001 in the world, whereby 1106356 certificates were to ISO 9001, and 346189 were to ISO 14001. Total number of standardized management systems (SMS) that is being followed by a certificate is eleven and the last to be monitored is ISO 39001 Road traffic safety (RTS) management systems - - Requirements with guidance for use. Our research in this paper refers to the definition and determination of the integrated index of business standardization. This parameter can be determined for one or more SMS, at the level of the world, continent, region or country are. This is a qualitative analysis of the application of SMS. This index has four elements, namely: (a) number of certificates per thousand inhabitants, (b) number of certificates contribution to "creating" hundreds of thousands of euros GNP, (c) number of certificates per GNP inhabitants, and (d) number of certificates per thousand employees. Based those parameters we determine integrated index of business standardization. The paper presents an analysis of this index of the Western Balkans Countries, for past ten years and prediction, also for next ten years.

Keywords: ISO, Certificates, Business standardization, Index, Analysis, Impact

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How Estimation of the Risk and FMEA Interfere?

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Abstract
Risk assessment and management, as technical activities involved in preventing hazards, are key to achieving performance goals. These are critical parts of any project planning and system analysis program. During the Risk Management, the risk estimation step represents the application of quantitative, semi-quantitative or qualitative measures to determine the level of risk associated with a specific hazard. When hazard causes are analyzed, techniques such as FMEA (failure mode effect analysis) and FTA (fault tree analysis) which focus on individual component failure or faulted modes are used. The intend of the paper is to present how the risk estimation and FMEA technique interfere and what need to do for eliminate the confusions and mistakes.

Keywords: Product Safety, Risk Management, Estimation of the Risk, Failure Mode Effect Analysis

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Bivariate Weibull Distributions Applied to Maintenance Modeling

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Abstract
The main idea of the paper is to determine a bivariate Weibull distribution for maintenance data, with Weibull marginal repartitions, generated from a bivariate standard normal repartition, each component (mileage and costs) having a normal distribution. The marginal univariate Weibull distributions were obtained from the values of standard cumulative distribution functions of the normal variables, with a correlation coefficient ρ. The values of the cumulative distribution function, derived from normal, follow an uniform continuous distribution on [0; 1]. The paper proposes procedures of calculus for bivariate Weibull distributions to enhance the modeling of the maintainability vs. the normal distribution. The calculus of the multivariate Weibull cumulative distribution function (CDF) is based on standard bivariate normal distribution, with a change of variables, which maintains and transfers the features of the former. The CDF of a univariate Weibull distribution was obtained using erffunction, which can convert to a new variable, uniform distributed. Each univariate normal distribution with two parameters is transformed in a Weibull one with scale and shape parameters are estimated the four parameters of the joint Weibull distribution. The estimate of the correlation coefficient, , of the initial normal marginal distributions, was considered as a measure of the dependence to determine the bivariate probability density function (PDF). The maximum likelihood method was applied to the bivariate Weibull probability density function to obtain an estimate of dependence parameter, , necessary for the calculus of joint Weibull CDF.

Keywords: bivariate Weibull distribution, maintenance-costs

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ISO 9000: Three Decades of Risk Management

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Abstract
Starting or developing a project always requires us to take risks. Therefore, it is important to identify, analyze, control and manage these risks. The article defines different types of risks and describes certain specific key steps. Risk management is a range of coordinated activities with the aim of directing and controlling an enterprise on risk. It allows a company to identify mitigation strategies data, so the company should be able to achieve its objectives.

Keywords: risk, risk management, hazard, uncertainty, planning, analysis, avoidance, minimization

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Study on the Security of E-Learning Platforms

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Abstract
In this paper, the authors present issues related to the security offered by e-learning platforms, analyzing the most widely used platform in education and training, Moodle. The features of this platform (including support for compliance with the GDPR European Regulation) are presented and the Moodle security vulnerabilities identified in 2018 are compared.

Keywords: security, vulnerability, education, e-learning platform, Moodle

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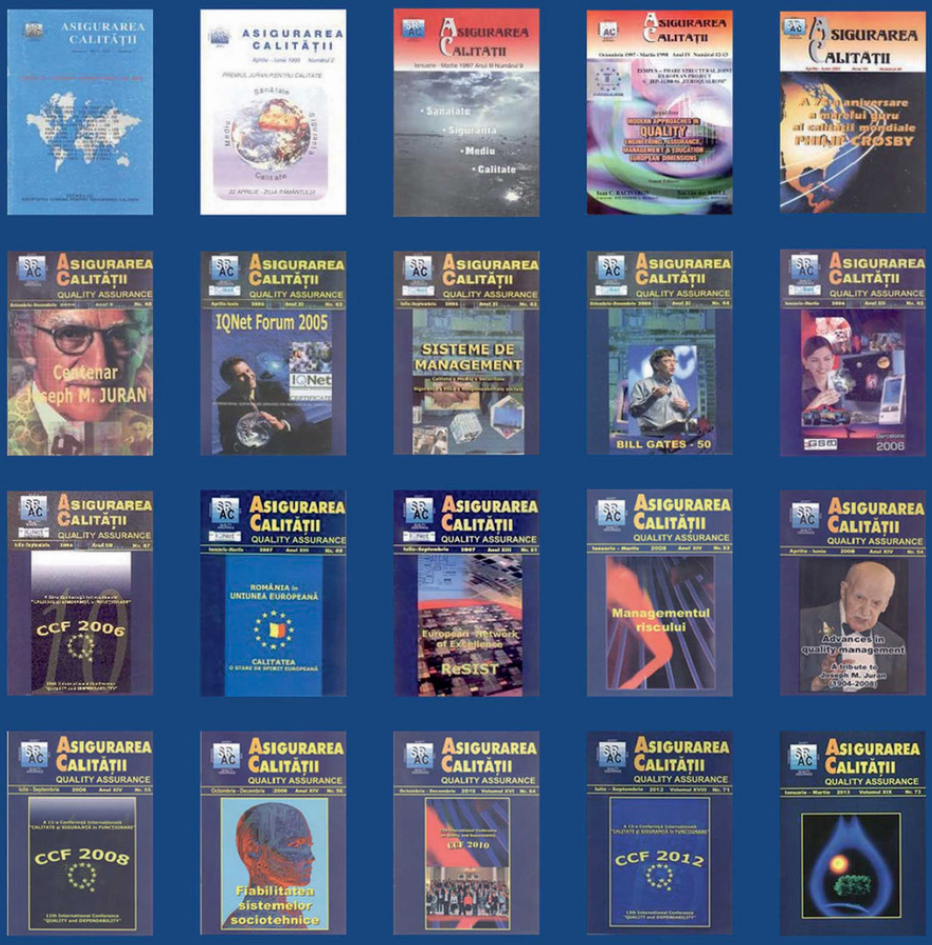

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