ABSTRACTS "INNOVATIVE TECHNOLOGY" 2 / 2011

ACCREDITATION - KEY TO SUCCESS OF TESTING LABORATORIES

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The instrument by which an organization demonstrates the continuing concern undertaken to ensure that its services meet customer requirements is the quality management system, that acquires value through its recognition by a competent body. Laboratory Accreditation is a certification that the laboratory has achieved a level of technical competence, which is sufficient to carry out certain types of activities.
Given the benefits of accreditation, the laboratory investigation of the INCDTP applied for this recognition, by documenting and implementing a quality management system since 1995, by showing a constant interest in development and continuous improvement, because these are the secrets of an competitive organization.

CERTIFICATION BODIES ACCREDITATION OF THE CONSTRUCTION PRODUCTS CONFORMITY TO THE REQUIREMENTS OF THE REGULATED AND THE VOLUNTEER DOMAIN

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The overall goal of any organization to fulfill its objectives is designed to achieve economically advantageous products or services, at a quality level which is dimensioned such as the products / services have utility for customers and the widest possible market outlets. In this general context it is possible to make a specific tie between the requirements of voluntary and subject areas, the recognition principle of the third part is found both on the certification and of the accreditation area. The paper makes a summary analysis, for this time, of the specific issues for a conformity products Certification Body, in its relations with customers, on voluntary market and also on the specific communitary market, and other hand subject rellated to specific EU regulatory requirements, with the national accreditation, with the notification and control authorities, market surveillance and other certification bodies which are active in the market.
Although it was not desirable for analysis and presentation of relevant issues to have critical accents, the authors can afford to emphasize where appropriate, some failures and inconsistencies of the notification process in the field, for a further discussion.

ACCREDITATION AND STANDARDS

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This paper presents accreditation methods for certification bodies of management systems and accreditation laboratories, which are based on SR EN ISO / IEC 17021:2011, ISO / IEC 17011, ISO / IEC 17025:2005. It is specified what obligations are arising from certification in accordance with the reference certification for the quality management system, SR EN ISO 9001: 2008 and there are references about the certification of products conformity - according to EN 45011:2001 and the definition of non-compliance. There are presented organization's important issues, which are related to necessary reference documents and the personnel in charge of standardization and standards.

METHODS FOR SOLVING SYSTEMS OF MECHANICAL ENGINEERING, ANALYSIS WITH FINITE ELEMENT METHOD

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This paper proposes to study how we can use the numeric modelling methods. This methods are used pre-emintely for solving the mechanical engineering problems. There are known: the finite difference method, the finite element method, the frontiere element method. The most used method is the finite element method and the softs are: Ansys, Abasqus, Nastran. The finite element method is in continuous increasing and one of its important objective is the implementation of the material constitutives laws, which permit to modellize different materials and esspecially composite material. To solve complexe problems, when analitical solutions are difficult to used, there are two liniar approximation methods.

THE EXPERIENCE OF TRANSILVANIA UNIVERSITY OF BRAŞOV IN THE DESIGN OF PV TRACKING SYSTEMS

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The dual axes solar tracking systems which are the subject of this paper accomplish two rotational movements of a PV platform in order to maximize the conversion of solar energy into electric energy. This paper is presenting the elements of embodiment design of a PV tracker and some of the main aspects

that must be considered in the design of such mechanical systems, as they are seen by the team of product development working within the research Department of Renewable Energy Systems and Recycling, from Transilvania University of Braşov.

WAYS TO INCREASE THE EXCAVATOR TEETH RELIABILITY

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Various technological equipment subassemblies are exposed to friction and wear processes during operation, which has a direct influence over their life and their behavior. In this context, the selection, the adaptation and the improvement of excavator teeth materials behavior have the main purpose to increase the abrasive wear resistance The present study shows the results of research which are based on experiments for the adoption of necessary materials for excavator teeth, according to various geological and mining working conditions.

INTEGRATED TRANSPORTATION AND RAW MATERIAL HANDLING SYSTEM BASED ON RFID TECHNOLOGY AND WIRELESS DATA TRANSMISSION. A CASE STUDY FOR THERMO POWER INDUSTRY

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The system aims to answer specific logistics requirements in the field of solid fuel supply for the power system industry, that is to reduce the handling of paper documents by managing the data flows regarding the supply activities through the implementation of new technologies and integration of all actors participating in this activity (suppliers, transporters, beneficiaries) [6,7].
Specific system targets are achieved: a) implementation of an AVI system (automatic identification for both for road and rail vehicles which performs the supply of coal, a system which based on RFID technology; b) implementation of an system for automatic generation of weighing receipts, through association the identification information with weighing informations; c) implementation of wireless communications solutions between the weighing points and the administrative buildings, in order to collect the data at a central database with information about vehicles, coal suppliers, coal weighing, or to replicate system information to all weighing points. This allows the integration of data into an economic and financial management system d) implementation of information and reporting applications for all the entities involved in the supply of solid fuels.

TESTING THE PERFORMANCE CHARACTERISTICS OF INDUSTRIAL HANDLING ROBOTS

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This paper presents the issue of using industrial robots, their usage area and their advantages and the potential of online and offline programming. EN ISO 9283:1998 (EN ISO 9283:2004) describes the performance criteria of industrial handling robots and associated test methods for their determination. It is presented Measuring and Analysis System of CompuGauge - 3D Robots Performances, of ICTCM Robotics Laboratory endowment. It was created as a useful tool for both robots manufacturers, integrators and end users, to measure, visualize and analyze the static and dynamic characteristics of industrial robots.

DETERMINING MOTOR RATED POWER AND DRIVETRAIN GEAR RATIOS OF AN ELECTRIC VEHICLE

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The paper presents the methodology of calculating the rated power of the motor and the drive train gear ratios of an electric vehicle. Therefore, we take into account the requirements with regard to: the maximum velocity of vehicle, the maximum grade, the maximum grades corresponding to the different constant velocities and the motion in driving cycles. The performed exemplifications allow to draw some more general conclusions.