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GOVERNMENT STANDARDS RELATED TO MECHANISMS OF DOOR LOCKS AND LATCHING SYSTEMS USED ON AUTOMOTIVE

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The industry steady improved automotive door lock designs starting around 1960s, in order to reduce death and injuries during automobile crash or rollover conditions. Developments were mainly aimed at reducing the likelihood of occupant ejection in crashes. Government agencies throughout the world have undertaken comprehensive research and rulemaking programs to find ways to reduce the number of fatalities during crushes and to protect occupants in those crashes or other type of car accidents. This paper summarizes most common used government standards related to automotive door latches and latching systems.

MECHANISMS USED AS AUTOMOTIVE DOOR LATCHES

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Side doors have the locking/unlocking feature integrated within the latch which can be manually actuated from the outside of the vehicle through a key lock cylinder or from the inside via a rod or via a cable attached to the door inside handle lock knob. All in all speaking, the number of latch component parts is dictated by the design requirement, packaging environment and engineering specifications.

ARTIFICIAL NEURAL NETWORKS IN NON-CONVENTIONAL MACHINING PROCESSES

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With many unique characteristics and possibilities artificial neural networks have founded remarkable role in almost every field of manufacturing. The wide usage of artificial neural networks is particularly popular in modelling complex nonlinear machining processes. This paper deals with the applications of the artificial neural networks in the non-conventional machining processes. The applications of artificial neural networks, founded in the referenced papers, refer to monitoring, modelling, prediction, classification and optimization. The results obtained by the authors are briefly described with the scope of input and output parameters of the network as well as network type. Finally, the findings are summarized and presented in tables.

PROCESSING AND CHARACTERISTICS OF WATER JET MACHINE

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Water jet machining is a relatively new machining technique in that the use of water jet under pressure become much more common in recent years for an increasing variety of tasks. This paper gives a basic characteristics of water (and abrasive water) jet machining and its applications.

CHARACTERISTICS OF MATERIAL IN ZONE OF CUT BY LASER CUTTING

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Laser cutting is cost effective technology. This process is based on melting and evaporating material in very small, well-defined area and blown out of the

cut by the assist gas. Laser cutting processes make heat action fully effective that is those that are produced by the laser beam affecting a work piece material. Laser cutting is high-temperature process which characterize small heat affected zone. The paper gives a part of experimental investigations of laser cutting process which analyses cut quality by laser cutting.

EXPERIMENTAL RESEARCH CONCERNING THE VASCULAR MODIFICATION FROM THE HUMAN ORAL CAVITY USING A DOPPLER ULTRASOUND DEVICE

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The used model of Doppler is a bi-directional analyzer, with FFT analysis and it is intended to obtain wave forms of the power spectrum of the sanguine rate through the continuous ultrasound wave. The purpose of this study is to asses the vascular modifications on the level of the oral mucosa at diabetes patients and to make a correlation between the obtained values and the affecting degree of the general status. This study is carried out on 10 diabetes patients, ages between 55-75 years old. In order to establish the vascular parameters on the level of the oral mucosa is done with the help of a Doppler ultrasound device. Following the performed determinations, we have obtained different values, of the measurement of the speed of blood, depending on the general status of the patient and his/her age. Because of its accuracy, low cost, absence of risk, and nearly universal availability, ultrasound is the initial test of choice for suspeted disease.

QUALITY ASSESSMENT OF THE USED CERAMIC SURFACES THROUGH X DIFRACTION

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The physical-chemical properties of ceramic materials are closely related to its crystalline phases and the X-ray diffraction can be used in order to investigate the crystalline structure of the ceramic material. Moreover, the diffractogram can give information about the structural and crystalline parameters, as well as the amorphous fraction of each type of ceramic material.

☒GLOBAL CONTEXT OF ROMANIAN ECOLOGICAL FOOTPRINT, IN TERMS OF CONSUMPTION OF GOODS AND SERVICES (I)

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This paper presents key elements of environmental sphere: the Living Planet Index, the Ecological Footprint of Humanity, the Welfare Planet Index. The first one is the average dynamics of Earth biodiversity, it shows that mankind has started to degrade the overall ecosystem at a unprecedent rate.The environment quality of a living human community shows the real civilization degree and it measures the chances for survivors. The Ecological Footprint measures the solicitation degree that the human resources demand exerts on the environment. Basically, the Environmental Footprint makes a report on human consumption over the natural resources, related to the Earth ability to regenerate them. The Welfare Planet Index was established to measure the environmental effectiveness of the distribution of wealth and human welfare on the planet.

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Consumer model of Romanian population is still heavily focused on the representation of need satisfaction /obligations, and it is less focused on cultural need and human development in the area of culture, education, foreign travel or other leisure activities. There are presented and analyzed the growth rates of prices in different sectors, with emphasis on the property and services area. The paper presents an analysis of earnings and consumption of employees families; it is focused on social and economic policies, the impact on the consumption of employees households.