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**CERCETĂRI PRIVIND INFLUENȚA MATERIALULUI PRELUCRAT ASUPRA
TEMPERATURII SCULEI AȘCHIETOARE**

LUNGU I., ZAGAN R., *Ovidius University of Constanta, Romania*

Abstract. Temperatura sculei așchietoare influențează semnificativ atât uzura sculei prin intensificarea fenomenelor care produc uzura, cât și precizia prelucrării datorită dilatării sculei. Pentru a putea interveni în sens pozitiv asupra acestor fenomene trebuie cunoscut modul de variație al temperaturii sculei și factorii care o determină.

**CONSIDERATION ABOVE THE MEASUREMENT OF THE ULTRASONIC
WAVES SPEED GENERATED WITH LASER**

CARJALI E., *Ovidius University of Constanta, Romania*

Abstract. The highly precisely knowledge of the ultrasonic waves propagation speed in a solid piece has a very practice importance when measure the piece thickness and at determination of elastics constants of a material.
The measurements can be directly, such one presented in the paper.

**CERCETĂRI TEORETICE PRIVIND ÎMBINAREA OȚELURILOR
TERMOREZISTENTE PRIN PROCEDEE DE SUDARE NECONVENȚIONALE**

ZAMFIRESCU G., BORMAMBET M., *Ovidius University of Constanta, Romania*

Abstract. In this paper there are presented the main unconventionally welding procedures for that steels which are used in some components exposed at high pressure and temperature. There are emphasized the advantages of using the welding unconventionally procedures in comparing with the conventionally ones.

**CONSIDERAȚII TEORETICE PRIVIND APLICAREA TRATAMENTELOR
TERMICE PRIN TEHNOLOGII NECONVENȚIONALE LA ÎMBINĂRILE SUDATE
DIN OȚELURI TERMOREZISITENTE**

ZAMFIRESCU G., BORMAMBET M., *Ovidius University of Constanta, Romania*

Abstract. This paper contains a presentation of the main unconventionally thermic treatments used for welded joints of heat-resisting steels, beginning with the hypothesis that the thermic treatments (reanneal, hardening, tarnish and ageing) are already known. For each basic thermic treatment there were emphasized the work principle, the medium structure and the technological parameters, and there were traced diagrams for a better understanding of the phenomena.

STUDIUL PRIVIND OPTIMIZAREA TEMPERATURII DE PREÎNCĂLZIRE LA SUDAREA OȚELULUI 12Ni14

BORMAMBET M., ZAMFIRESCU G., *Ovidius University of Constanta, Romania*

Abstract. This paper represents a study for determination the preheating temperature at welding for the 12Ni14 steel – a cryogenic steel Ni based. The preheating temperature determination has been made by optimization for which it has been used a specialized program for calculation and tracing, named MathCad 7 Professional.

STUDIUL PRIVIND SUDABILITATEA OȚELURILOR CRIOGENICE

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Abstract. In this paper there is presented a weld ability of 2 cryogenics steels: 12Ni14 and 10TiNiCr180. For these two steels studied, it has been made the weld ability analyze for 12Ni14 steel and predetermination for the weld macrostructure obtained between the 10TiNiCr180 austenitic steel and the electrode compatible with the mentioned steel. For the structure predetermination it has been used the MathCad 7 Professional program and the values obtained with it were used into the Schaeffler diagram to represent the equivalent chromium and nickel.

LE CONTROLE D'AVANTAGE A LOGIQUE FLOUE POUR DES MOTEURS A ALLUMAGE PAR ETINCELLE

MANEA A.T., MANEA L.C., *Ovidius University of Constanta, Romania*

Abstract. The paper presents the recent authors researches in fuzzy logic control applied to electronic ignition loop control. The study realised with electronic devices for Spark Ignited Engines creates the database of complex multiparameters advance maps for Romanian spark ignited engines. The authors propose the modern fuzzy logic control instead of binary logic control. The paper show that it is possible to obtain really the same complex spatial advance surface relative to speed and load through binary and fuzzy logic control.

AN APPLICATION OF FUZZY LOGIC CONTROLLERS IN PROCESS CONTROL OF MODERN MARINE DIESEL ENGINES SULZER RT-FLEX TYPE

MANEA L.C., MANEA A.T., *Ovidius University of Constanta, Romania*

Abstract. This paper deals with an application of fuzzy logic control in engine optimization. The work is design to use and multiply the facilities offer by new Wartsila NSD concept in intelligent engines. The authors develop a new method, based on sets of linguistically rules in order to shorten the turnaround time required to reach optimum point in running.

UNELE CONSIDERAȚII PRIVIND CONTROLUL ȘI REGLAJUL STATISTIC AL PROCESELOR

MILITARU C.^a, TOPALU A.M.^b, *^aPolytechnica University of Bucharest, Romania, ^bOvidius University of Constanta, Romania*

Abstract. Lucrarea prezintă un model general de control și reglaj considerând un proces care generează o caracteristică y_t la momemntul t . problema care se pune este de a alege funcția de control (cotroler-ul) astfel încât deviația ε_t de la valoarea țintă T să aibă cea mai mică abatere standard.

În modelul de control și reglaj, fișa de control pune în evidență nivelul de variabilitate a procesului, prin intermediul limitelor de control. De asemenea, se vor stabili și limitele de reglaj, respectiv limitele de pe fișa care conduc la acțiunea de reglaj. Pentru fiecare fișă de control și reglaj se stabilesc apoi regulile de acțiune și reglaj, care asigură monitorizarea procesului și menținerea acestuia în parametrii optimali.

IMPORTANȚA MANAGEMENTULUI PORTUAR ÎN MĂRIREA PRODUCTIVITĂȚII MACARALELOR PORTINER

POPESCU V., MENADIL H., *Ovidius University of Constanta, Romania*

Abstract. Continual increasing of the handle goods with the help of containers needs extending of productivity in containers terminal, which can be carried out by improving driving and control systems, implementation of some diagnosis systems, development of the information and management of port system.

The using of certain interactive and integrate systems for supervising and attending of the terminal operations permits identification of those places where we should work towards changing for the better of operation performances.

This article focuses upon information and management in maritime ports, presenting its possibilities for achieving.

ASUPRA MĂRIRII PRODUCTIVITĂȚII MACARALELOR PORTAINER

MENADIL H., POPESCU V., *Ovidius University of Constanta, Romania*

Abstract. Increasing of the volume of containers used in international trade imposes extending of handling productivity in terminal container ports. These have to operate even larger specialized ships, the time being briefer, making use of portainer cranes with proper dimension and productivity.

This article focuses upon the main ways for enlarging of productivity, these consisting in geometrical changes and supplying with intelligent systems for driving and control.

INVERTOR 5-O NOUĂ VIZIUNE ÎN PROIECTAREA ASISTATĂ DE CALCULATOR

POMAZAN V., *Ovidius University of Constanta, Romania*

Abstract. Invertor-Autodesk's parametric geometric modeler was enhanced with new capabilities. From a fancy new modeler Invertor performed an ascendent trajectory towards an performant mechanical engineering design tool. The paper rewies the main enhancements and new design methods comprised.

SURFACING AND RAPID PROTOTYPING TECHNIQUES

POMAZAN V., *Ovidius University of Constanta, Romania*

Abstract. Rapid prototyping is an automated process that quickly builds physical prototypes from 3D CAD files composed of surfaces quilts or solid models. RP models can provide major returns via increased innovation and reduced production. Rapid surfacing at each stage of modification of the model can keep a check on the impact of modifications on the size and shape of the model. The paper presents, based on the analysis performed by wellknown specialist, the trends of the RP and surfacing techniques.