ABSTRACT

NAUTICAL AND MANAGEMENT SCIENCE

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RAO FUNCTIONS SIMULATION FOR SEMI-SUBMERSIBILES

Abstract: *Actual semi-submersible use various technology and systems to improve response in waves. Heave plates are used if required in offshore renewable energy projects to improve lifecycle of the onboard equipments. Using computational fluid dynamics CFD software we will present the difference resulted in Response Amplitude operator for both cases studied. The CFX solver will be programmed to perform a number of trials according various angles and frequencies. Results presented are unique because of the development of the three column semi-submersible.*

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SECURING MEASURES FOR ON BOARD GOODS (MOORING, ANCHORING, STACKING)

Abstract: *Shipping operators require special care on securing goods and persons on board. Long journeys and harsh natural conditions very frequently lead to unwanted accidents. Hence, a well-established preventive behavior on board, proper anchoring and securing cargo in containers easy to handle, improves the chances for goods to reach the destination "unharmed".*
Unfortunately, there is a growing number of incidents and loss of cargo aboard ships lately. Losses in large vehicles, cars, machinery, steel pipes, steel structures, timber, freight containers, dangerous chemicals. Goods must be stackable so that the ship moored and shipboard personnel should not be exposed to any risk. It is a first priority for mooring and safe stacking and good planning, execution and supervise on/off the loading and unloading. Lashing and stowage aboard ship are extremely important factors for the safety of life at sea. Inadequate mooring of goods led to many accidents and even loss of lives both during voyage and during loading and unloading operations.

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THE INFORMATION MANAGEMENT FOR MARITIME ACCIDENT RECONSTRUCTION USING VOYAGE DATA RECORDER SYSTEM

Abstract: *In the recent year it has increased the volume of maritime transport, so that led to the involvement of more ships in the industrial sector, increasing maritime accidents, of which some were even causing losses of life. To face this issue and to increase security on the sea, the International Maritime Organization (IMO) has agreed to implement a data recorder on board, similar to the black boxes used on aircraft, called "white boxes". This paper has the purpose to explain the system VDR (Voyage Data Recorder) for a casualty. Analysis was performed in a case study on a marine casualty and the results of its reconstruction were concluded that the VDR system can be optimized.*

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GENETIC TECHNIQUES APPLIED IN ACTUAL NETWORK MANAGEMENT

Abstract: *Actual IT medium and future trends in this domain encourages the development of large, high-evolutive networks, with a high heterogeneity, who must meet a number of requirements in terms of maximum throughput, minimum delay, loss, delay-variation. The idea of mobility for everyone, using a large number of devices is becoming normality and change the way to manage networks. All of these characteristics, combined with anarchic scalability and event-driven architecture, transform network management in a multicriteria optimization problem. This article proposes a genetic algorithms way to realize a adaptive, autonomous management of such networks, with a efficient resources allocation, a efficient utilization of links and QoS guarantee.*

FLORIN-MARIUS NICOLAE, IONELA BADEA, ANDREI BAUTU
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SIMEN - INNOVATIVE SOLUTION FOR MONITORING EXHAUST EMISSIONS FROM SHIPS

Abstract: *The environmental protection is a critical issue for the global maritime industry. Maritime transport contributes significantly to air pollution, especially in coastal areas. Over 70% of emissions from ships, especially greenhouse gases are produced in the coastal zone at a distance of about 400 km from the coast.*

Air pollution from ships has been at the center stage of discussion by the world shipping community at least during the last decade. The purpose of this paper is to develop an innovative solution for monitoring gas emissions from ships, a software solution for monitoring data on emissions from shipping in the Western Black Sea.

FILIP NISTOR, HARALAMBIE BEIZADEA
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STANDARDIZATION IN TRAINING AND QUALIFICATION OF THE LABOR FORCE IN SHIPPING

Abstract: *Shipping is an industry governed internationally by imposing regulations that must take into account by any company involved in maritime transport. In a market where companies operate all around the world, each respecting the rules imposed at national level, standardization is an activity that comes and establishes common rules and helps the interaction between firms. The most important regulations are imposed on the labor market in shipping. In this paper the authors aim to highlight the importance of standardization in training and qualification of the seafarers in shipping by presenting the factors that lead to the improvement and functioning of these market regulations.*

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STABILITY ANALYSIS OF MODERN OFFSHORE SEMI-SUBMERSIBLES

Abstract. *Based on a tri-column semisubmersible Autoship analysis will be done on different designs. WindFloat project values are used to draw 3D in AUTOSHIP software. Results from Autohydro component are analyzed and presented related to actual offshore construction and stability requirements. Societies of Classification are imposing rules regarding safety and ways to prevent accidental situations. Based on this analysis the semi-submersible owner can decide if the tri-column semi-submersible is according to imposed stability requirements during operation.*

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THE EXPERT SYSTEMS ANALYSIS USING THE CONCEPT OF BIG DATA AND CLOUD COMPUTING SERVICES

Abstract: *This paper presents the general characteristics of expert systems for process data analysis in real time and secure information systems using Cloud computing and Big Data technologies. The cyber security in cyber war must be redefined considering the collisions of IT&C with the informational risk.*

IONEL CLAUDIU PASARE
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THE ROLE OF THE NORTH ATLANTIC ALLIANCE IN THE CRITICAL ENERGY INFRASTRUCTURE PROTECTION

Abstract: *The North Atlantic Alliance considers that energy is nowadays an indispensable part of security. Hereby we cannot talk about security without analysing the energy side, with all its implications, including the critical energy infrastructure. But the security of "critical infrastructure" is affected by vulnerabilities, risks, threats, failed states and aggressions. Finding out vulnerabilities determine the identification of threats under which the terrorist attacks are imminent. Taking into account that NATO and EU share the same vital security concerns, an enhanced co-operation in the field of critical energy infrastructure protection may constitute one of the common projects of practical and efficient co-operation development.*

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SIMULATED PROPELLER WALK ON A 13.300 TEU CONTAINER SHIP

Abstract: *Maritime transport continues to be the main pillar of the global economy as the largest amount of all raw and processed products is made through it. The increasing number of vessels led to the increase on maritime traffic thus increasing the risk of naval accidents. The main factor of all naval accidents remains the human factor, being present in about 80-90% of the cases.*
The movement of a ship is made under the influence of the propeller unit and steering system. Knowing the characteristics, of the ship, of steering and propulsion, represent one the main responsibilities for the officer in charge with the navigational watch. The aim of this paper is to present the influence of the propeller upon the ship maneuverability by simulation techniques.

CATALIN POPA, IMRE RECZEY, DAVID QUANSAH
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THE INTERNATIONAL HUMAN CAPITAL AND THE GLOBAL COMPETITIVENESS

***Abstract*:** *The globalization of human capital is one of the most noteworthy dimensions of the current wave of globalization. Globalization, technological evolution, and the ambition to become a knowledge-based economy has encouraged many countries to pursue new ways to maintain a competitive advantage which in turn has given focus on the need to develop its human capital (HC). At the organisational level, Globalisation has changed the way in which organisations (private or public) operate. HC is of vital importance for any success, and increases through education and experience of its employees. It is therefore at this point that the human capital and international human resource management (IHRM) intersect. IHRM's link with HC makes it probably one of the most critical functions of any organization because it deals with people related issues, particularly when the organization is operating within a highly competitive global environment. Therefore, the purpose of this paper is to examine particularities in regards to Human Capital within a globalisation framework.*

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PASSIVE ACOUSTIC UNDERWATER NOISE MEASUREMENTS IN CONSTANTA PORT AREA

Abstract: *Generally, underwater noise measurements are made to monitor the impact of commercial and military activities in oceans and seas and to provide information for vessel identification. In this paper, the authors analyse the noise produced by ship traffic at the entrance of Constanta harbour. Comparisons between background noise and ship noise are made, and an analysis of the propagation of noise produced by each measured ship is made regarding the distance between ship and hydrophones (CPA – closest point of approach). Also, we discussed about the characteristics of ship's noise spectral components and the dependence of sound propagation in port aquatorium on these characteristics. The recorded signals are thoroughly analysed by means of FFT and Wavelet for low and mid frequency bands. A few conclusions and remarks are made in the end about spatial distribution and level of underwater sound in entrance of Constanta harbour which is obtained from measurements by superimposing one or more noise sources in the area of interest.*