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Title: APPLICATION OF ADVANCED COMPUTING TECHNOLOGIES IN MARINE SYSTEMS MODELLING AND CONTROL
Author(s): Radovan Antonić, Ivan Komar, Mirko Bilić
Affiliation: Faculty of Maritime Studies, University of Split, Split, Croatia
Key words: fuzzy logic, expert system, modelling, control, marine diesel engine

Abstract: The paper deals with some application possibilities of advanced computing technologies in marine systems modelling and control. New computing technologies and techniques like fuzzy logic (FL), expert systems (ES), artificial neural networks (ANN), genetic algorithms (GA), object oriented programming (OOP) offer new, extended possibilities to identification, modelling and control of dynamic systems. This paper presents some possibilities of practical use of advanced computing technologies applied to the modelling and control of marine diesel engines. The emphasis is put on two well recognised techniques, fuzzy logic and expert systems. Some application examples are illustrated in the paper to show effectiveness of using such methods and techniques in marine diesel engine modelling and control.
education. The emphasis was on active reception of chosen art and music works from the art treasury and experienced creative reactions to them. In the music field there, are set out emotions, which arise by listening to music over music elements and structures, in the art field, the emotions are connected with impressions of harmony and expressions of art elements. The purpose of our research was to establish the ability of children to connect art and music field, and to investigate experiencing and reactions to presenting art and music works. Our theoretical hypothesis was verified in practice on the sample of elementary pupils aged 6 and 11. By connecting simultaneous experiences of art and music works observed, by most chosen examples, statistically important differences in artistic experiences of younger and older categories of pupils were established.

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**Abstract**

The aim of the Lisbon Agenda for the countries of the European Union is to achieve the highest competence and to become knowledge-driven society by 2010. The goals defined this way are a variable because in some developed countries of EU15 they have already become the standard, for the others they are real perspective, whereas for some they are pure utopia. Education is considered to be one of the most important pillars to achieve this goal. The adjustment of education process has already started in Croatia. It calls for fundamental change in the process of thinking and shifting from classic “adaptive” models based on receiving information to more “creative” models of learning by improving the abilities to create better future. The obstacle in this course may be the parents and teachers, who in the era of digital gap have kept market and owner orientation, the characteristic of industrial society, thus becoming incompetent to solve the problems and create the future of their computer and network oriented children.

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**Author Review**

Giorgio Sinković, Vanja Bevanda

**Affiliation**

Faculty of Economy and Tourism in Pula, University of Rijeka, Rijeka, Croatia

**Keywords**

Information and Communication Technology, Standardization, Quality, Security, ISO 20000, ISO 27000
Abstract: Fast and intensive applications of information and communications technology (ICT) in contemporary business can be considered as a result of standardization of this field. The organization can achieve significant competitive advantage applying and customizing new standards. Regardless to this, there are significant lack of scientific articles elaborating different standardization approaches, strategies, processes and impact of their application to the business field. In this article we examine the developmental perspective of the standards comparing new international standards with the previous ones in order to establish base for their application and decisions making. Recent issued families of standards ISO 20000 and ISO 27000 are grouped based on several subjects following the logic of previous issued standards ISO 9000 and ISO 14000. Our assumption is that between those standards exists a correlation that gives opportunities to adjust different activities of some organization to the generic and specific requirements as a foundation for obtaining different certificates. The prerequisites creation for adoption and maintenance of particular family of standards depends on management decisions and business policy of particular organization.

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Abstract: The number of places taken in the boarding schools dropped dramatically upon Slovenia becoming an independent country. The decrease was caused by several factors simultaneously. The management of boarding schools in Slovenia can choose between two extreme alternatives: abolishment of the boarding schools as such, or finding a way of their development by forming new models. The new economic system favors free market and profit generating activities whereas the boarding schools had already in former Yugoslavia been set up as social institutions. During the recent period i.e. during the first years of sovereignty of Slovenia, the number of pupils residing in boarding schools has decreased. The gap between the capacities and numbers of places taken, has appeared as a result of the planning in 80s which was based on the then expected influx of pupils from other regions of former Yugoslavia and on the vision of economic development of individual areas which however was not realized. This article discusses the mission of boarding schools as organizations, the policy of their management and governance and provides data on the tendency of the number of pupils residing in boarding schools and finally a social-developmental theoretical model of a boarding school which will evolve in the changed environment of Slovenia as part of EU.
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**Title:** CROATIAN “BRAIN-DRAIN”  
**Author(s):** Slobodan Bjelajac  
**Affiliation:** Faculty of Philosophy, University of Split, Split, Croatia  
**Key words:** brain drain, working abroad, education  
**Abstract:** According to census from 2001 Croatia has 3,682,826 settlements in age 15 and more years old. Out of that number 254,500 is temporarily employed in foreign countries (6.9 %). It is more important to mention that 31,526 (12.38%) is highly educated what is significantly more than their deal in total Croatian population (8.01%). These facts are telling us that Croatia as semi-developed country creates educated people for highly-developed countries, what is one of generators of deepening its lower level of development. If we go further into analysis, we can discover that Croatia is educational „eldorado“ for highly developed countries. More over, Croatia is providing the scientific workers for highly developed countries, what we call in sociology „brain-drain“. We can illustrate that with the fact that 999 doctors of science and 1,665 masters of sciences from Croatia are working out of the country. That means that 3.2% of Croatian migrant workers are doctors or masters of Science, or that one seventh of Croatian scientists are working abroad. This text is showing the countries in which Croatian doctors are employed (mostly in North America and Europe), their socio-demographic characteristics (there are twice relatively more males than females) as well as the basic causes of the Croatian „brain-drain“ (bad working conditions in Croatia, low wages of scientists, very large study groups etc).

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**Title:** PREFERENCES OF THE YOUNG PEOPLE IN USING IT TOOLS  
**Author(s):** Mateusz Muchacki  
**Affiliation:** Pedagogical University of Cracow, Cracow, Poland  
**Key words:** education, technology, IT tools, development  
**Abstract:** Mass culture particularly affects the development and shaping of modern man. The appearance of the worldwide web is considered to be the main factor in the globalisation of information. General access to the Internet allows the user to obtain information from outside his direct reach. Both the worldwide web and computer games strongly affect people and can either enhance his development or be of destructive character. The ability to use the gains of civilisation is the foundation for human development. Therefore, we as a society should devote more attention to shaping this ability. Teachers have a special role to play in this area; on one hand, they should develop technical abilities of their students, while on the other one, they should counteract excessively technocratic approach to reality. The starting point for educational interactions in this area similarly to all the other educational contexts is the diagnosis of students’ preferences for using IT tools, in addition to examining their knowledge and skills. This paper is a report on research concerning interests and preference of secondary school youth (gymnasium and lyceum) in using IT tools.
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Title: PUBLIC AVAILABILITY OF FISCAL INFORMATION THROUGH INTERNET IN TRANSITIONAL COUNTRIES

Author(s): Vinko Kandžija, Igor Živko, Branimir Skoko
Affiliation: Faculty of Economy, University of Mostar, Mostar, Bosnia and Herzegovina

Abstract: Making fiscal information available to the public is a defining characteristic of fiscal transparency. Fiscal transparency coverage of the annual budget, thiers forecasts, contingent liabilities, tax expenditures and quasi-fiscal activities, dbit and financial assets, and the consolidated position of general goverment. Fiscal transparency would make a major contribution to the cause a good governance. It should lead to better-informed public debate about the design and results of fiscal policy. This paper will analyse fiscal transparency in select transitional countries through Internet in practice (Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia).

Title: EDUCATION SOFTWARE FOR STUDENTS AND TEACHERS IN THE FIRST FOUR GRADES OF PRIMARY SCHOOL

Author(s): Slavoljub Hilčenko
Affiliation: Elementary School „Nikola Vukičević”, Sombor, Serbia

Abstract: The project “From Game to Computer” is the result of several years long work, experience and research in educational practice. In our country it is a pioneer’s attempt to store latest scientific information in the fild of educational software development. The pupils and teacher from the first to the fourt form of primary school are the target group of this educational software. The study pack comprise DVD as the basic teaching equipment and “Multipurpose Didactic and Methodology Handbook” for teachers. The disc comprises research seven area, and five of them are teaching subjects i.e. 1.think-arrange, 2.think-do, 3.manage-surrounding, 4. calculate-count, 5.read-write, 6. play-write music, 7. beat around the bush. The contents are not sumarized curriculum of stated subjects, but their extension. They comprise 175 animated execises presented in the form of problem task. Practical tasks are making one fourth of all the task together. Presented contents cover completely the optional school subject “From Toys to Computer” for the first form of primary school. The disc comprises drawings and sounds in over 1000 units which are intendet for teachers’ preparation and initial animation. Teaching with software enables more interesting learning and evaluation and enhances logical thinking, perception and combinative learning, i.e. cognitive and connotation abilities, and skillfulness. Thus, pupils unconsciously gain working knowledge of using computers.